

The Burden of Diabetes in New Jersey: A Surveillance Report



New Jersey Department of Health and Senior Services
Division of Family Health Services
Chronic Disease Prevention and Control Services



**Diabetes Prevention and Control Program
May 2005**

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Acting Governor

Fred M. Jacobs, M.D., J.D.
Commissioner

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INTRODUCTION

Chances are everyone knows someone who has diabetes. It is estimated that over 440,000 New Jerseyans have been diagnosed with diabetes¹ and an additional 178,000 residents have the disease² but are unaware of it. These figures do not include people with pre-diabetes which is estimated to be double the number of people with diagnosed and undiagnosed diabetes combined. In New Jersey, diabetes is not only common, it is also costly and significant in its impact on health. Direct and indirect costs associated with medical care, lost productivity and premature mortality attributable to diabetes total about \$5.9 billion per year in the state.³ As disturbing as this figure is, it reflects only the dollar figure. This cost estimate does not speak to the suffering endured by people with diabetes and their high rates of heart disease, stroke, foot ulcers and lower-extremity amputations, kidney disease, neurological problems, and blindness. Nor does it tell of the pain and loss experienced in relation to thousands of deaths annually in which diabetes is one of the listed causes.

The risk of diabetes is not evenly distributed among New Jerseyans. Some segments of our population suffer disproportionately from this disease. Blacks, Hispanics, Asians, and American Indians are far more heavily impacted than Whites. People over 45 years of age are more likely to have diabetes than those who are younger. People with a family history of diabetes; people who are obese; people with high blood pressure or high blood cholesterol; women with a history of gestational diabetes; and women who have had a baby weighing over 9 pounds are all at greater risk of diabetes.

Although the data presented here may make the challenges that we face seem daunting, the intent of this report is not to overwhelm the reader. Its purpose is, rather, to make known the many opportunities that exist to modify the negative impacts that diabetes has on the people of New Jersey. Diabetes is controllable and much of its burden can be delayed or prevented. Wellness enhancement (e.g. proper nutrition, physical activity, control of blood pressure, and smoking cessation), early detection of diabetes, proper treatment and screening for complications at recommended intervals are critical factors in the prevention of complications. In our efforts to define the scope of the problem of diabetes in New Jersey, we hope to increase awareness of this disease, draw attention to modifiable risk factors and methods of preventing complications, provide direction for action, and establish a basis for feedback on the success of efforts undertaken.

The New Jersey Diabetes Prevention and Control Program's Data Committee was originally formed to assess the extent of the burden of diabetes in New Jersey. The results of the United States Department of Health and Human Services-funded Diabetes Prevention Program study, published in 2002, conclusively showed that people with pre-diabetes can prevent the development of type 2 diabetes by making changes in their diet and increasing their level of physical activity. In this update of *The Burden of Diabetes in New Jersey: A Surveillance Report* (November 1999), the scope of the report has been expanded to include data relevant to primary prevention.

Three chapters of the updated report are being posted to the New Jersey Department of Health and Senior Services website initially. The chapters include "New Jersey Demographics," "Diabetes Prevalence," and "Diabetes in Pregnancy." As additional chapters are developed, they

will be posted to the website. It is anticipated that topics covered in subsequent chapters will include diabetes treatment, primary and secondary prevention, diabetes related morbidity, diabetes mortality, and the direct and indirect costs of diabetes.

Data provided in *The Burden of Diabetes in New Jersey: A Surveillance Report - 2005* are not comparable to the data in the 1999 report. Much of the data in the earlier report were synthesized using National Interview Survey Data (NHIS), whereas parallel estimates provided in this report are based on New Jersey Behavioral Risk Factor Survey (BRFS) data.

It is our hope that the information presented here and in future reports is thought-provoking and will be used to help organizations and agencies in planning and developing coordinated intervention strategies to address diabetes issues and used in efforts to find a cure for diabetes. The diabetes surveillance report is the culmination of those efforts. The New Jersey Diabetes Council provided guidance and support to the Committee throughout the process.

¹ New Jersey Behavioral Risk Factor Survey (BRFS) data from 2001 through 2003. The core BRFS questionnaire gathers responses to the question: "Have you ever been told by a doctor that you have diabetes?" A follow-up question for females then clarifies whether the diabetes was present only during pregnancy.

² CDC, National Center for Chronic Disease Prevention and Health Promotion, Diabetes Public Health Resource, National Diabetes Fact Sheet, web site, <http://www.cdc.gov/diabetes/pubs/estimates.htm.asp>, December 4, 2003.

³ Coffey RM, Mathews TL, McDermot K. Diabetes Care Quality Improvement: A resource Guide for State Action. (Prepared by The Medstat Group, Inc. and The Council of State Governments under Contract No. (290-00-0004). Rockville, MD: Agency of Healthcare Research and Quality, Department of Health and Human Services; September 2004. AHRQ Pub. No. 04-0072. Page 37.

CHAPTER 1

Demographic, socioeconomic, and other factors, such as race, ethnicity, age, gender, obesity, family history, geographic location, income, and education affect the current and future health status of a given population. Not only do these factors influence prevalence and incidence of disease, they also impact disease treatment and prevention. The effect that population characteristics can have on rates of disease in a community is particularly apparent for diabetes. For example, substantial differences exist in rates of diabetes and quality care indicators for people in varying age categories, racial groups, and even for people with different insurance status.

The purpose of this chapter is to illustrate the demographics and other characteristics of New Jersey at the statewide and municipal levels. This information will be useful in providing a frame of reference and context in which to interpret findings presented in subsequent chapters.

- Data from the 2000 census indicate New Jersey's population was 8,414,350 people; this number represents an 8.9 % increase over the 1990 estimate. In comparison, the United States population increased 13.2% in that time frame to 281,421,906 people. According to Census 2000 data, in the aggregate, New Jersey residents were older than United States residents. About 13.2% of New Jerseyans were 65 or over. Nationally, only 12.4% of residents were in that age group. In the year 2000, the median age of New Jersey residents was 36.7 years as compared to 35.3 years for United States residents (Table 1).
- According to U. S. Census 2000 "Bridged Population Data," and 1990 Census "Modified Age, Race, and Sex Data," racial and ethnic groups have increased at different rates. New Jersey's white population had the lowest percentage increase at 4.0%, while the Asian and other Pacific Islander population increased by a staggering 85.6%. For the same period of time, the black population increased by 15.3% and the total population of Hispanic origin increased by 49.4% (Table 2).
- The percent change in the New Jersey resident population between 1990 and 2000 was not constant for all age groups. There were age groups in which population size had dramatically increased, such as 5 through 14 year and men 45 through 54 year age groups. The population increase in the 45 and over age group is particularly pertinent because the risk of developing diabetes increases considerably in this age group. However, there were other age groups for which the population declined, such as the 20 through 24 year and the 60 through 64 year age groups (Table 3).
- According to Census 2000 data, there were more female residents (51.5%) than male residents (48.5%) in New Jersey. Women had a longer life expectancy than men and this longevity may account for the difference. However, the percentage changes from 1990 to 2000 in the male population exceeded the female percentage changes in each age group (Table 4).
- Gender distribution among racial groups showed variability. For white females and males of all ages, the percentages were identical to the statewide distribution of gender.

However, black females represented 52.9% of the statewide black population, while females in the non-white and non-black category constituted 49.8% of that population. Gender distribution was considerably different for the 45 years and older age groups. In this age group, 54.7% of the statewide white population was female, 57.5% of the black population was female, and 52.7% of the non-white and non-black category was female (Table 5).

- Census 2000 data suggested that the Hispanic population in New Jersey was younger than the statewide aggregate population. Statewide, 78.7% of the Hispanic population was under 45 years of age (Table 6), while 64% of the total statewide population was under 45 years of age (Table 4).
- The percentage of Hispanic females in the 45 years and over age group was greater than that of Hispanic males in the 45 and over age group. About 23.3% of Hispanic females fell within this age group, while only 19.4% of Hispanic males were 45 years or older (Table 7).
- More than 70 % (72.6%) of New Jersey's residents were white. Sussex County at 95.7% had the highest percentage of white residents. Black residents made up 13.6% of the State's population. Essex County at 41.2% had the highest percentage of black residents. Asian residents comprised 5.7% of New Jersey's residents. Middlesex County at 13.9% had the highest percentage of Asian residents. The county that had the highest percentage of individuals whose racial make-up was of two or more races was Hudson at 5.6% (Table 8A).
- According to Census 2000, New Jersey residents of Hispanic origin comprised 13.3% of New Jersey's population. This was a considerable increase from 1990, at which time residents of Hispanic origin only comprised 9.5% of the population. There was a total Hispanic population increase from 739,861 to 1,117,191, a 51% increase. Hudson County had the highest percentage of Hispanic residents in 2000 at 39.8%. Over 64% of New Jersey's Hispanic population resided in the counties of Hudson, Passaic, Essex, Union, and Middlesex (Table 8B).
- At the turn of the 21st century, over 25% of New Jersey's Hispanic population resided in the State's four most heavily populated municipalities: Newark, Jersey City, Paterson, and Elizabeth. Since 1990, Clifton at 220% followed by Hamilton Township (Mercer County) at 123%, had the greatest rates of growth in Hispanic residents among New Jersey's 15 most populous cities (Table 8C).
- A comparison by race of the 15 most populous municipalities indicated that Newark (Essex) had the largest number of black residents at 146,250. In comparison, Dover Township (Ocean) at 83,839 had the largest number of white residents. The municipality that had the largest number of Asian residents was Jersey City (Hudson) at 38,881. In 2000, 41.7% of the black population resided in the 15 most populated municipalities in New Jersey. In comparison, only 13.3% of the white population resided in these 15 municipalities. These data suggest that the New Jersey white population tended to reside in less densely populated areas of the State while the black population resided in the more urban areas of the State (Table 8 D).

- The three counties that had the highest percentage of their total population over 74 years old were Ocean at 11.5%, Cape May at 9.8%, and Bergen at 7.5% (Table 9 A).
- While population for all age categories increased from 1990 to 2000 by 8.9%, during the same period of time, the 45 and over age group population increased by 16.6% and the 65 and over age group increased only by 7.9%. The county that had the greatest increase in population in the 45 and over age group was Sussex at 38.9%. For the 65 and over age group, the county that showed the greatest change in population was Somerset with a 28.3% increase (Table 9B).
- Two out of five (40.1%) New Jersey white residents were age 45 and above. The county having the highest percentage of whites in the 45 years and older age group was Gloucester at 57.8%. In contrast, only 28.0% of the black population in New Jersey was 45 years of age or older. Salem County at 32.6% had the highest percentage of blacks in the 45 and over age group. The Asian population in the 45 and above age grouping had statewide proportions similar to that of the black population; 26.4% of the Asian population was age 45 and above. Salem County at 35.6% was the percentage leader for the Asian population in the 45 years and over age category (Table 10A).
- Among the Hispanic population in New Jersey, 21.3% were age 45 years and above. Hudson County at 26.4% had the highest percentage of Hispanics in the 45 years and above age grouping; while Salem had the lowest percentage (15.1%) of Hispanics in that age group (Table 10B).
- There was a great amount of ethnic diversity in the population mix of New Jersey. This diversity was demonstrated by the number of people speaking foreign languages. In 2000, a foreign language was spoken in 25.5% of New Jersey's households. The five counties that had the highest percentages of households in which a foreign language was spoken were Hudson at 56.1%, Passaic at 41.9%, Union at 35.2%, Middlesex at 33.4%, and Bergen at 32.4% (Table 11A).
- According to Census 2000 data, 2,001,690 residents of New Jersey aged 5 years and older spoke a language other than English. Spanish, spoken by 967,741 residents of New Jersey, was the foreign language spoken most frequently. Spanish speakers were followed by speakers of Italian, Chinese, Polish, Portuguese, Tagalog, Korean, Gujarathi, French, Arabic, and all other languages combined. The three counties with the greatest number of residents over 5 years of age who spoke a foreign language were Hudson at 320,636, Bergen at 269,112, and Middlesex at 233,939 (Table 11B).
- Linguistic isolation may cause health access problems. Table 11C demonstrates the extent of linguistic isolation in New Jersey. According to the U.S. Census Bureau, "A linguistically isolated household is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English." There were 99,625 Spanish speaking, 56,425 Indo-European, 26,915 Asian and Pacific Islander, and 6,158 "other" households that were linguistically isolated.

Hudson County had the highest number of residents who were linguistically isolated (Table 11C).

- New Jersey's statewide poverty rate, according to Census 2000 data, was 8.5%. This figure represents a 7.5% increase in the poverty rate since 1989. The five New Jersey counties with the highest poverty rates in descending order were Essex at 15.6%, Hudson at 15.5%, Cumberland at 15.0%, Passaic at 12.3%, and Atlantic at 10.5%. Coincidentally, these same counties in the same order had the highest rates of increase in their poverty rates between 1989 and 1999: Essex at 14.6%, Hudson at 14.5%, Cumberland at 14.0%, Passaic at 11.3%, and Atlantic at 9.5% (Table 12).
- Figure 1 illustrates the percentage of uninsured persons by poverty level status for the year 2000. In the illustration, New Jersey figures are compared to United States figures. The chart shows that for the year 2000, New Jersey residents with family incomes below the poverty level had a higher likelihood of not having health insurance than United States residents at that income level. The chart also demonstrates that New Jersey residents with family incomes slightly above the poverty rate, a ratio of 1.00 to 1.3, possibly the working poor, had greater likelihood of being uninsured than the residents of the United States. Additionally, at the family income and poverty level ratio of greater than 1.33, residents of the United States and New Jersey were comparably insured.

Table 1 Profile of General Demographic Characteristics for New Jersey and the United States: 2000					
New Jersey			United States		
	Number	% Year 2000 Distribution		Number	% Year 2000 Distribution
Total population.....	8,414,350	100	Total population.....	281,421,906	100
SEX AND AGE			SEX AND AGE		
Male.....	4,082,813	48.5	Male.....	138,053,563	49.1
Female.....	4,331,537	51.5	Female.....	143,368,343	50.9
Under 5 years.....	563,785	6.7	Under 5 years.....	19,175,798	6.8
5 to 9 years.....	604,529	7.2	5 to 9 years.....	20,549,505	7.3
10 to 14 years.....	590,577	7	10 to 14 years.....	20,528,072	7.3
15 to 19 years.....	525,216	6.2	15 to 19 years.....	20,219,890	7.2
20 to 24 years.....	480,079	5.7	20 to 24 years.....	18,964,001	6.7
25 to 34 years.....	1,189,040	14.1	25 to 34 years.....	39,891,724	14.2
35 to 44 years.....	1,435,106	17.1	35 to 44 years.....	45,148,527	16
45 to 54 years.....	1,158,898	13.8	45 to 54 years.....	37,677,952	13.4
55 to 59 years.....	423,338	5	55 to 59 years.....	13,469,237	4.8
60 to 64 years.....	330,646	3.9	60 to 64 years.....	10,805,447	3.8
65 to 74 years.....	574,669	6.8	65 to 74 years.....	18,390,986	6.5
75 to 84 years.....	402,468	4.8	75 to 84 years.....	12,361,180	4.4
85 years and over.....	135,999	1.6	85 years and over.....	4,239,587	1.5
Median age (years).....	36.7	(X)	Median age (years).....	35.3	(X)
18 years and over.....	6,326,792	75.2	18 years and over.....	209,128,094	74.3
Male.....	3,013,338	35.8	Male.....	100,994,367	35.9
Female.....	3,313,454	39.4	Female.....	108,133,727	38.4
21 years and over.....	6,033,473	71.7	21 years and over.....	196,899,193	70
62 years and over.....	1,303,854	15.5	62 years and over.....	41,256,029	14.7
65 years and over.....	1,113,136	13.2	65 years and over.....	34,991,753	12.4
Male.....	446,780	5.3	Male.....	14,409,625	5.1
Female.....	666,356	7.9	Female.....	20,582,128	7.3
RACE/ETHNICITY			RACE/ETHNICITY		
One race.....	8,200,595	97.5	One race.....	274,595,678	97.6
White.....	6,104,705	72.6	White.....	211,460,626	75.1
Black or African American.....	1,141,821	13.6	Black or African American.....	34,658,190	12.3
American Indian and Alaska Native.....	19,492	0.2	American Indian and Alaska Native.....	2,475,956	0.9
Asian.....	480,276	5.7	Asian.....	10,242,998	3.6
Asian Indian.....	169,180	2	Asian Indian.....	1,678,765	0.6
Chinese.....	100,355	1.2	Chinese.....	2,432,585	0.9
Filipino.....	85,245	1	Filipino.....	1,850,314	0.7
Japanese.....	14,672	0.2	Japanese.....	796,700	0.3
Korean.....	65,349	0.8	Korean.....	1,076,872	0.4
Vietnamese.....	15,180	0.2	Vietnamese.....	1,122,528	0.4
Other Asian.....	30,295	0.4	Other Asian.....	1,285,234	0.5
Native Hawaiian and Other Pacific Islander..	3,329	-	Native Hawaiian and Other Pacific Islander..	398,835	0.1
Native Hawaiian.....	634	-	Native Hawaiian.....	140,652	-
Guamanian or Chamorro.....	779	-	Guamanian or Chamorro.....	58,240	-
Samoan.....	563	-	Samoan.....	91,029	-
Other Pacific Islander.....	1,353	-	Other Pacific Islander.....	108,914	-
Some other race.....	450,972	5.4	Some other race.....	15,359,073	5.5
Two or more races.....	213,755	2.5	Two or more races.....	6,826,228	2.4
HISPANIC OR LATINO AND RACE			HISPANIC OR LATINO AND RACE		
Hispanic or Latino (of any race).....	1,117,191	13.3	Hispanic or Latino (of any race).....	35,305,818	12.5
Mexican.....	102,929	1.2	Mexican.....	20,640,711	7.3
Puerto Rican.....	366,788	4.4	Puerto Rican.....	3,406,178	1.2
Cuban.....	77,337	0.9	Cuban.....	1,241,685	0.4
Other Hispanic or Latino.....	570,137	6.8	Other Hispanic or Latino.....	10,017,244	3.6
Not Hispanic or Latino.....	7,297,159	86.7	Not Hispanic or Latino.....	246,116,088	87.5
White alone.....	5,557,209	66	White alone.....	194,552,774	69.1
Source: U.S. Bureau of the Census					
Prepared by the New Jersey State Data Center, New Jersey Department of Labor, June 2001					

Table 2 Changes in Population by Race and Hispanic Origin New Jersey, 1990 to 2000				
Race and Ethnicity	1990*	2000**	Change 1990 to 2000	
			Number	Percent
White	6,377,702	6,629,830	252,128	4.0%
Black	1,077,119	1,241,469	164,350	15.3%
Asian and Other Pacific Islander	277,024	514,273	237,249	85.6%
American Indian and Alaska Native	15,905	28,778	12,873	80.9%
All Races	7,747,750	8,414,350	666,600	8.6%
Hispanic	747,737	1,117,191	369,454	49.4%
Non-Hispanic	7,000,013	7,297,159	297,146	4.2%
New Jersey Total	7,747,750	8,414,350	666,600	8.6%
*1990 Census Modified Race Data (MARS), prepared by New Jersey Department of Labor. **2000 U.S. Census Bridged Population Data. Prepared by the National Center for Health Statistics.				

Table 3 Changes in Population by Age Group New Jersey, 1990 to 2000				
Age Group	1990 Census	2000 Census	% Change 1990 - 2000	% of Total 2000
Under 5 years	532,637	563,785	5.8%	6.7%
5 - 9 years	493,044	604,529	22.6%	7.2%
10 - 14 years	480,983	590,577	22.8%	7.0%
15 - 19 years	505,388	525,216	3.9%	6.2%
20 - 24 years	566,594	480,079	-15.3%	5.7%
25 - 34 years	1,360,651	1,189,040	-12.6%	14.1%
35 - 44 years	1,196,659	1,435,106	19.9%	17.1%
45 - 54 years	843,009	1,158,898	37.5%	13.8%
55 - 59 years	355,677	423,338	19.0%	5.0%
60 - 64 years	363,521	330,646	-9.0%	3.9%
65 - 74 years	610,192	574,669	-5.8%	6.8%
75 - 84 years	326,286	402,468	23.3%	4.8%
85 years and over	95,547	135,999	42.3%	1.6%
New Jersey Total	7,730,188	8,414,350	8.9%	100.0%
Median age (years)	34.4	36.7	6.7%	---
21 years and over	5,604,647	6,033,473	7.7%	71.7%
62 years and over	1,249,833	1,303,854	4.3%	15.5%
Source: U.S. Bureau of the Census				

Table 4 Changes in Population by Age Group and Gender New Jersey, 1990 to 2000				
Gender	1990 Census	2000 Census	% Change 1990 to 2000	% Distribution 2000
Male	3,735,685	4,082,813	9.3%	48.5%
Female	3,994,503	4,331,537	8.4%	51.5%
Age and Gender				
17 years and under	1,799,462	2,087,558	16.0%	24.8%
Male	921,383	1,069,147	16.1%	12.7%
Female	878,079	1,018,083	15.9%	12.1%
18 years and older	5,930,726	6,326,792	6.7%	75.2%
Male	2,814,302	3,013,338	7.1%	35.8%
Female	3,116,424	3,313,454	6.3%	39.4%
45 years and older	2,594,232	3,026,018	16.6%	36.0%
Male	1,157,027	1,366,614	18.1%	16.2%
Female	1,437,205	1,659,404	15.5%	19.7%
65 years and older	1,032,025	1,113,136	7.9%	13.2%
Male	408,957	446,780	9.2%	5.3%
Female	623,068	666,356	6.9%	7.9%
New Jersey Total	7,730,188	8,414,350	8.9%	100.0%
Source: U.S. Bureau of the Census				

Table 5 Total Population and 45 and Over Population by Race and Gender New Jersey, 2000				
Race/Gender	Total		45 and Older	
	Number	Percent	Number	Percent
White	6,104,705	100.0%	2,449,106	100.0%
Male	2,958,412	48.5%	1,109,262	45.3%
Female	3,146,293	51.5%	1,339,844	54.7%
Black	1,141,821	100.0%	319,927	100.0%
Male	538,209	47.1%	135,907	42.5%
Female	603,612	52.9%	184,020	57.5%
Other (Includes Multiracial)	1,167,824	100.0%	256,985	100.0%
Male	586,192	50.2%	121,445	47.3%
Female	581,632	49.8%	135,540	52.7%
Total	8,414,350	100.0%	3,026,018	100.0%
Male	4,082,813	48.5%	1,366,614	45.2%
Female	4,331,537	51.5%	1,659,404	54.8%
Source: U.S. Bureau of the Census				

Table 6 Population of Persons of Hispanic Origin by Age New Jersey, 2000			
Age	Total	Percent*	Cumulative Percent
0-4	99,371	8.9%	8.9%
5-14	187,002	16.7%	25.6%
15-24	194,460	17.4%	43.0%
25-34	213,141	19.1%	62.1%
35-44	184,971	16.6%	78.7%
45-54	114,738	10.3%	88.9%
55-64	66,795	6.0%	94.9%
65-74	36,959	3.3%	98.2%
75-84	15,270	1.4%	99.6%
85+	4,484	0.4%	100.0%
Total	1,117,191	100.0%	100.0%
*Numbers may not add to total because of rounding. Source: U.S. Bureau of the Census			

Table 7 Population of Persons of Hispanic Origin 45 Years and Over by Gender New Jersey, 2000							
		45 and Over					
		45 to 64		65 and Over		Total 45 and Over	
Gender	Total	Number	Percent	Number	Percent	Number	Percent
Male	65,545	86,617	15.3%	23,120	4.1%	109,737	19.4%
Female	51,646	94,916	17.2%	33,593	6.1%	128,509	23.3%
Total	1,117,191	181,533	16.2%	56,713	5.1%	238,246	21.3%
Source: U.S. Bureau of the Census							

Table 8A
Population by County, Race, and Percent of County Population
New Jersey, 2000

County	Total Population	One Race														Two or More Races	
			White		Black or African American		American Indian or Alaska Native		Asian		Native Hawian and Other Pacific Islander		Some Other Race				
		Total	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Atlantic	252,552	246,027	172,632	68.4	44,534	17.6	669	.26	12,771	5.1	114	.05	15,307	6.1	6,525	2.6	
Bergen	884,118	864,160	693,236	78.4	46,568	5.3	1,336	.15	94,324	10.7	193	.02	28,503	3.2	19,958	2.3	
Burlington	423,394	414,644	331,898	8.4	64,071	15.1	898	.21	11,378	2.7	144	.03	6,255	1.5	8,750	2.1	
Camden	508,932	499,121	360,756	0.9	92,059	18.1	1,300	.26	18,910	3.7	187	.04	25,909	5.1	9,811	1.9	
Cape May	102,326	101,144	93,700	1.6	5,178	5.1	186	.18	661	0.6	40	.04	1,379	1.3	1,182	1.2	
Cumberland	146,438	142,261	96,478	65.9	29,585	20.2	1,419	.97	1,397	1.0	82	.06	13,300	9.1	4,177	2.9	
Essex	793,633	766,478	352,859	44.5	327,324	41.2	1,861	.23	29,429	3.7	417	.05	54,588	6.9	27,155	3.4	
Gloucester	254,673	251,366	221,742	87.1	23,084	9.1	487	.19	3,805	1.5	75	.03	2,173	0.9	3,307	1.3	
Hudson	608,975	574,680	338,457	55.6	82,098	13.5	2,547	.42	56,942	9.4	383	.06	94,253	15.5	34,295	5.6	
Hunterdon	121,989	120,779	114,563	93.9	2,743	2.2	169	.14	2,348	1.9	35	.03	921	0.8	1,210	1.0	
Mercer	350,761	343,142	240,206	68.5	69,502	19.8	688	.20	17,340	4.9	352	.10	15,054	4.3	7,619	2.2	
Middlesex	750,162	730,665	513,298	68.4	68,467	9.1	1,521	.20	104,212	13.9	300	.04	42,867	5.7	19,497	2.6	
Monmouth	615,301	604,990	519,261	84.4	49,609	8.1	879	.14	24,403	4.0	153	.02	10,685	1.7	10,311	1.7	
Morris	470,212	462,886	410,042	87.2	13,181	2.8	572	.12	29,432	6.3	188	.04	9,471	2.0	7,326	1.6	
Ocean	510,916	504,347	475,391	93.0	15,268	3.0	702	.14	6,550	1.3	103	.02	6,333	1.2	6,569	1.3	
Passaic	489,049	469,261	304,786	62.3	64,647	13.2	2,166	.44	18,064	3.7	175	.04	79,423	16.2	19,788	4.0	
Salem	64,285	63,344	52,195	81.2	9,498	14.8	226	.35	396	0.6	19	.03	1,010	1.6	941	1.5	
Somerset	297,490	292,033	236,042	79.3	22,396	7.5	375	.13	24,941	8.4	121	.04	8,158	2.7	5,457	1.8	
Sussex	144,166	142,516	138,015	95.7	1,502	1.0	161	.11	1,738	1.2	28	.02	1,072	0.7	1,650	1.1	
Union	522,541	505,581	342,302	65.5	108,593	20.8	1,215	.23	19,993	3.8	201	.04	33,277	6.4	16,960	3.2	
Warren	102,437	101,170	96,846	94.5	1,914	1.9	115	.11	1,242	1.2	19	.02	1,034	1.0	1,267	1.2	
NJ Total	8,414,350	8,200,595	6,104,705	72.6	1,141,821	13.6	19,492	.23	480,276	5.7	3,329	.04	450,972	5.4	213,755	2.5	

Source: U.S. Census Bureau, Census 2000, Redistricting Data Summary File.
Prepared by: New Jersey State Data Center, New Jersey Department of Labor, March 2001.

Table 8B
Population by County, Hispanic Origin, Percent of County Population, and Percent Change
New Jersey, 1990 to 2000

County	1990					2000					% Change in Number of Hispanics 1990-2000
	Total	Non Hispanic		Hispanic		Total	Non Hispanic		Hispanic		
		Number	Percent	Number	Percent		Number	Percent	Number	Percent	
Atlantic	224,327	208,210	92.8%	16,117	7.2%	252,552	221,823	87.8%	30,729	12.2%	90.7%
Bergen	825,380	777,604	94.2%	49,776	5.8%	884,118	792,741	89.7%	91,377	10.3%	83.6%
Burlington	395,066	382,247	96.8%	12,819	3.2%	423,394	405,762	95.8%	17,632	4.2%	37.5%
Camden	502,824	466,802	92.8%	36,022	7.2%	508,932	459,766	90.3%	49,166	9.7%	36.5%
Cape May	95,089	93,234	98.0%	1,855	2.0%	102,326	98,948	96.7%	3,378	3.3%	82.1%
Cumberland	138,053	119,705	86.7%	18,348	13.3%	146,438	118,615	81.0%	27,823	19.0%	51.6%
Essex	778,206	680,429	87.4%	97,777	12.6%	793,633	671,286	84.6%	122,347	15.4%	25.1%
Gloucester	230,082	225,951	98.2%	4,131	1.8%	254,673	248,090	97.4%	6,583	2.6%	59.4%
Hudson	553,099	369,634	66.8%	183,465	33.2%	608,975	366,852	60.2%	242,123	39.8%	32.0%
Hunterdon	107,776	106,044	98.4%	1,732	1.6%	121,989	118,618	97.2%	3,371	2.8%	94.6%
Mercer	325,824	306,159	94.0%	19,665	6.0%	350,761	316,863	90.3%	33,898	9.7%	72.4%
Middlesex	671,780	612,004	91.1%	59,776	8.9%	750,162	648,222	86.4%	101,940	13.6%	70.5%
Monmouth	553,124	530,717	95.9%	22,407	4.1%	615,301	577,126	93.8%	38,175	6.2%	70.4%
Morris	421,353	401,539	95.3%	19,814	4.7%	470,212	433,586	92.2%	36,626	7.8%	84.8%
Ocean	433,203	419,253	96.8%	13,950	3.2%	510,916	485,278	95.0%	25,638	5.0%	83.8%
Passaic	453,060	354,968	78.3%	98,092	21.7%	489,049	342,557	70.0%	146,492	30.0%	49.3%
Salem	65,294	63,858	97.8%	1,436	2.2%	64,285	61,787	96.1%	2,498	3.9%	74.0%
Somerset	240,279	230,092	95.8%	10,187	4.2%	297,490	271,679	91.3%	25,811	8.7%	153.4%
Sussex	130,943	128,032	97.8%	2,911	2.2%	144,166	139,344	96.7%	4,822	3.3%	65.6%
Union	493,819	426,022	86.3%	67,797	13.7%	522,541	419,530	80.3%	103,011	19.7%	51.9%
Warren	91,607	89,823	98.1%	1,784	1.9%	102,437	98,686	96.3%	3,751	3.7%	110.4%
NJ Total	7,730,188	6,992,327	90.5%	739,861	9.5%	8,414,350	7,297,159	86.7%	1,117,191	13.3%	51.0%

Source: U.S. Bureau of the Census.

Table 8C Population by Hispanic Ethnicity for the 15 Largest Municipalities New Jersey, 1990 to 2000					
Municipality (County)	1990		2000		Percent Change in Number of Hispanics from 1990 to 2000
	Non Hispanic	Hispanic	Non Hispanic	Hispanic	
Newark city (Essex)	203,460	71,761	192,924	80,622	12.3%
Jersey City city (Hudson)	173,142	55,395	172,103	67,952	22.7%
Paterson city (Passaic)	83,180	57,711	74,448	74,774	29.6%
Elizabeth city (Union)	66,952	43,050	60,941	59,627	38.5%
Edison township (Middlesex County)	84,841	3,839	91,461	6,226	62.2%
Woodbridge township (Middlesex County)	87,906	5,180	88,247	8,956	72.9%
Dover township (Ocean County)	74,427	1,944	85,636	4,070	109.4%
Hamilton township (Mercer County)	84,547	2,006	82,638	4,471	122.9%
Trenton city (Mercer)	76,145	12,530	67,012	18,391	46.8%
Camden city (Camden)	60,219	27,273	48,885	31,019	13.7%
Clifton city (Passaic)	66,865	4,877	63,064	15,608	220.0%
Brick township (Ocean County)	64,758	1,715	73,189	2,930	70.8%
Cherry Hill township (Camden County)	67,968	1,380	68,187	1,778	28.8%
East Orange city (Essex)	70,571	2,981	66,540	3,284	10.2%
Passaic city (Passaic)	29,013	29,028	25,474	42,387	46.0%
Source: U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Table PL1.					

Table 8D
Population by Race for the 15 Largest Municipalities in New Jersey
New Jersey, 2000

Municipality (County)	Total Population	One Race							Two or More Races
		Total One Race	White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	
Newark city (Essex)	273,546	261,620	72,537	146,250	1,005	3,263	135	38,430	11,926
Jersey City city (Hudson)	240,055	226,044	81,637	67,994	1,071	38,881	181	36,280	14,011
Paterson city (Passaic)	149,222	140,008	45,913	49,095	901	2,831	84	41,184	9,214
Elizabeth city (Union)	120,568	113,507	67,250	24,090	580	2,830	55	18,702	7,061
Edison township (Middlesex County)	97,687	95,583	58,116	6,728	132	28,597	37	1,973	2,104
Woodbridge township (Middlesex County)	97,203	94,812	68,848	8,507	167	14,054	24	3,212	2,391
Dover township (Ocean County)	89,706	88,702	83,939	1,568	117	2,207	21	850	1,004
Hamilton township (Mercer County)	87,109	85,579	74,173	7,112	121	2,234	31	1,908	1,530
Trenton city (Mercer)	85,403	82,672	27,802	44,465	300	716	199	9,190	2,731
Camden city (Camden)	79,904	76,773	13,454	42,628	435	1,958	59	18,239	3,131
Clifton city (Passaic)	78,672	75,075	59,960	2,277	192	5,066	27	7,553	3,597
Brick township (Ocean County)	76,119	75,325	72,932	751	76	904	12	650	794
Cherry Hill township (Camden County)	69,965	69,152	59,240	3,121	71	6,205	24	491	813
East Orange city (Essex)	69,824	67,171	2,683	62,462	177	302	51	1,496	2,653
Passaic city (Passaic)	67,861	64,438	24,044	9,385	531	3,740	29	26,709	3,423

Source: U.S. Census Bureau, Census 2000 Redistricting Data (P.L. 94-171) Summary File, Table PL1.

Table 9A Percent of Population in Age Group by County New Jersey, 2000						
County	Age					Total Population
	Under 18	18-44	45-64	65-74	75 & Over	
Atlantic	25.3%	38.7%	22.4%	7.2%	6.4%	252,552
Bergen	23.0%	37.3%	24.5%	7.8%	7.5%	884,118
Burlington	25.2%	39.0%	23.3%	6.9%	5.7%	423,394
Camden	26.8%	38.6%	22.1%	6.5%	6.1%	508,932
Cape May	22.3%	31.9%	25.6%	10.4%	9.8%	102,326
Cumberland	25.4%	39.7%	21.9%	6.6%	6.4%	146,438
Essex	26.1%	40.5%	21.5%	6.2%	5.7%	793,633
Gloucester	26.4%	39.3%	22.6%	6.3%	5.3%	254,673
Hudson	22.6%	46.0%	20.0%	6.0%	5.3%	608,975
Hunterdon	25.7%	37.1%	27.1%	5.6%	4.5%	121,989
Mercer	24.0%	40.8%	22.5%	6.4%	6.1%	350,761
Middlesex	23.7%	42.3%	21.7%	6.5%	5.8%	750,162
Monmouth	26.1%	37.3%	24.1%	6.5%	6.0%	615,301
Morris	24.8%	38.3%	25.3%	6.3%	5.3%	470,212
Ocean	23.3%	32.6%	21.9%	10.6%	11.5%	510,916
Passaic	26.1%	40.6%	21.3%	6.2%	5.9%	489,049
Salem	25.6%	35.7%	24.2%	7.3%	7.2%	64,285
Somerset	25.5%	39.7%	23.5%	6.0%	5.2%	297,490
Sussex	27.9%	37.7%	25.3%	4.9%	4.2%	144,166
Union	24.9%	39.2%	22.1%	6.8%	7.0%	522,541
Warren	26.1%	37.6%	23.5%	6.6%	6.3%	102,437
NJ Total	24.8%	39.2%	22.7%	6.8%	6.4%	8,414,350
Source: 2000 Census of Population and Housing, US Bureau of the Census, Summary File 1 Prepared by: New Jersey State Data Center, New Jersey Department of Labor, 2/03						

Table 9B
County Populations by Selected Age Groups and Percent Changes
New Jersey, 1990 and 2000

County	Total			45 and Over					65 and Over				
	1990	2000	Pop. Change	1990		2000		Pop. Change	1990		2000		Pop. Change
				Number	Percent	Number	Percent		Number	Percent	Number	Percent	
Atlantic	224,327	252,552	12.6%	75,164	33.5%	90,998	36.0%	21.1%	32,594	14.5%	34,437	13.6%	5.7%
Bergen	825,380	884,118	7.1%	317,721	38.5%	351,708	39.8%	10.7%	126,359	15.3%	134,820	15.2%	6.7%
Burlington	395,066	423,394	7.2%	120,684	30.5%	151,823	35.9%	25.8%	42,188	10.7%	53,218	12.6%	26.1%
Camden	502,824	508,932	1.2%	155,184	30.9%	176,237	34.6%	13.6%	61,191	12.2%	63,769	12.5%	4.2%
Cape May	95,089	102,326	7.6%	38,336	40.3%	46,827	45.8%	22.1%	19,131	20.1%	20,681	20.2%	8.1%
Cumberland	138,053	146,438	6.1%	45,138	32.7%	51,107	34.9%	13.2%	18,657	13.5%	19,087	13.0%	2.3%
Essex	778,206	793,633	2.0%	250,794	32.2%	265,236	33.4%	5.8%	98,321	12.6%	94,380	11.9%	-4.0%
Gloucester	230,082	254,673	10.7%	67,390	29.3%	87,354	34.3%	29.6%	24,761	10.8%	29,678	11.7%	19.9%
Hudson	553,099	608,975	10.1%	176,874	32.0%	191,307	31.4%	8.2%	70,401	12.7%	69,271	11.4%	-1.6%
Hunterdon	107,776	121,989	13.2%	33,671	31.2%	45,326	37.2%	34.6%	10,201	9.5%	12,228	10.0%	19.9%
Mercer	325,824	350,761	7.7%	106,370	32.6%	123,218	35.1%	15.8%	42,229	13.0%	44,140	12.6%	4.5%
Middlesex	671,780	750,162	11.7%	210,665	31.4%	255,296	34.0%	21.2%	78,817	11.7%	92,590	12.3%	17.5%
Monmouth	553,124	615,301	11.2%	184,233	33.3%	225,397	36.6%	22.3%	70,387	12.7%	76,923	12.5%	9.3%
Morris	421,353	470,212	11.6%	140,257	33.3%	173,324	36.9%	23.6%	44,422	10.5%	54,530	11.6%	22.8%
Ocean	433,203	510,916	17.9%	178,731	41.3%	225,247	44.1%	26.0%	100,408	23.2%	113,260	22.2%	12.8%
Passaic	453,060	489,049	7.9%	146,932	32.4%	163,066	33.3%	11.0%	58,435	12.9%	59,033	12.1%	1.0%
Salem	65,294	64,285	-1.5%	22,832	35.0%	24,857	38.7%	8.9%	9,558	14.6%	9,311	14.5%	-2.6%
Somerset	240,279	297,490	23.8%	78,012	32.5%	103,320	34.7%	32.4%	26,013	10.8%	33,381	11.2%	28.3%
Sussex	130,943	144,166	10.1%	35,694	27.3%	49,576	34.4%	38.9%	11,684	8.9%	13,152	9.1%	12.6%
Union	493,819	522,541	5.8%	179,442	36.3%	187,544	35.9%	4.5%	74,125	15.0%	72,041	13.8%	-2.8%
Warren	91,607	102,437	11.8%	30,108	32.9%	37,250	36.4%	23.7%	12,143	13.3%	13,206	12.9%	8.8%
NJ Total	7,730,188	8,414,350	8.9%	2,594,232	33.6%	3,026,018	36.0%	16.6%	1,032,025	13.4%	1,113,136	13.2%	7.9%
Source: U.S. Bureau of the Census.													

Table 10A Population of Persons 45 Years and Older by Selected Races and County, New Jersey, 2000						
County	Whites 45 & Over		Blacks 45 & Over		Asians 45 & Over	
	Number	% of White Population	Number	% of Black Population	Number	% of Asian Population
Atlantic	70,907	41.1%	12,752	28.6%	3,498	27.4%
Bergen	300,908	43.4%	15,236	2.2%	25,452	27.0%
Burlington	127,033	38.3%	18,666	29.1%	3,480	30.6%
Camden	139,651	38.7%	24,601	26.7%	5,629	29.8%
Cape May	44,581	47.6%	1,592	30.7%	231	34.9%
Cumberland	40,306	41.8%	6,756	22.8%	496	35.5%
Essex	145,886	41.3%	94,006	28.7%	8,532	29.0%
Gloucester	77,861	57.8%	7,287	31.6%	1,139	29.9%
Hudson	128,095	37.8%	20,660	25.2%	15,180	26.7%
Hunterdon	43,790	38.2%	428	15.6%	725	30.9%
Mercer	95,618	39.8%	19,260	27.7%	4,674	27.0%
Middlesex	204,169	39.8%	17,227	25.2%	23,020	22.1%
Monmouth	199,857	38.5%	14,714	29.7%	6,993	28.7%
Morris	157,714	38.5%	4,134	31.4%	8,345	28.4%
Ocean	216,833	45.6%	4,071	26.7%	1,941	29.6%
Passaic	121,458	40.6%	16,800	26.0%	5,068	28.1%
Salem	21,181	37.6%	3,094	32.6%	141	35.6%
Somerset	88,767	37.6%	6,236	27.8%	6,090	24.4%
Sussex	48,091	34.8%	406	27.0%	474	27.3%
Union	140,418	41.0%	31,485	29.0%	5,611	28.1%
Warren	35,982	37.2%	516	27.0%	296	23.8%
NJ Total	2,449,106	40.1%	319,927	28.0%	127,015	26.4%
Source: U.S. Bureau of the Census Prepared by the New Jersey State Data Center						

Table 10B
Population of Persons of Hispanic Origin,
Total, and 45 years and Older by County,
New Jersey, 2000

County	Total Hispanic	45 and Over	
		Number	Percent
Atlantic	30,729	5,158	16.8%
Bergen	91,377	21,494	23.5%
Burlington	17,632	3,405	19.3%
Camden	49,166	8,445	17.2%
Cape May	3,378	517	15.3%
Cumberland	27,823	5,147	18.5%
Essex	122,347	25,834	21.1%
Gloucester	6,583	1,196	18.2%
Hudson	242,123	63,804	26.4%
Hunterdon	3,371	625	18.5%
Mercer	33,898	5,284	15.6%
Middlesex	101,940	18,940	18.6%
Monmouth	38,175	6,955	18.2%
Morris	36,626	7,143	19.5%
Ocean	25,638	5,137	20.0%
Passaic	146,492	29,899	20.4%
Salem	2,498	377	15.1%
Somerset	25,811	4,160	16.1%
Sussex	4,822	1,014	21.0%
Union	103,011	23,029	22.4%
Warren	3,751	683	18.2%
NJ Total	1,117,191	238,246	21.3%

Source: 2000 Census of Population and Housing, US Bureau of the Census, Summary File 1
Prepared by: New Jersey State Data Center, New Jersey Department of Labor, 2/03

Table 11A Percentage of Households Where a Foreign Language is Spoken by County New Jersey, 2000	
County	Foreign Language Spoken in Household
Atlantic	20.3%
Bergen	32.4%
Burlington	10.3%
Camden	15.6%
Cape May	6.6%
Cumberland	20.4%
Essex	29.7%
Gloucester	6.5%
Hudson	56.1%
Hunterdon	8.6%
Mercer	20.2%
Middlesex	33.4%
Monmouth	14.7%
Morris	19.7%
Ocean	10.9%
Passaic	41.9%
Salem	6.3%
Somerset	22.9%
Sussex	8.3%
Union	35.2%
Warren	8.4%
NJ Total	25.5%
Source: U.S. Census Bureau, Census 2000 Summary File 3	

Table 11B Total Population of Persons 5 Years and Over Who Speak Selected Foreign Languages at Home by County New Jersey, 2000												
County	Total	Spanish or Spanish Creole	Italian	Chinese	Polish	Portuguese or Portuguese Creole	Tagalog	Korean	Gujarathi	French (incl. Patois, Cajun)	Arabic	Other
Atlantic	48,029	26,047	2,656	2,055	676	71	1,745	539	1,527	1,198	747	10,768
Bergen	269,112	79,959	21,960	11,402	16,876	4,484	11,637	32,803	4,035	4,102	6,753	75,101
Burlington	41,013	15,483	2,590	1,283	1,331	1,195	1,461	1,698	984	2,171	726	12,091
Camden	73,950	40,475	3,836	3,693	1,847	306	2,740	1,473	1,655	1,725	766	15,434
Cape May	6,452	2,917	919	66	187	41	230	8	108	507	89	1,380
Cumberland	28,133	22,898	1,263	185	364	35	128	74	42	545	72	2,527
Essex	218,613	108,723	10,350	5,630	3,091	23,744	5,772	2,290	2,005	10,943	2,627	43,438
Gloucester	15,374	5,324	2,396	620	581	214	916	284	286	819	278	3,656
Hudson	320,636	214,949	9,658	6,150	6,165	10,894	15,912	2,815	7,942	3,997	11,302	30,852
Hunterdon	9,813	2,750	1,141	491	558	109	143	120	121	844	73	3,463
Mercer	66,252	29,167	4,414	4,270	3,548	297	715	1,428	1,293	2,525	1,279	17,316
Middlesex	233,939	85,403	8,072	19,387	9,306	5,913	8,969	4,513	15,143	2,959	7,080	67,194
Monmouth	84,345	30,137	8,255	8,102	2,267	3,372	2,417	1,417	1,208	2,965	1,697	22,508
Morris	86,287	31,704	6,991	8,392	2,833	1,147	2,429	2,071	3,204	2,428	1,294	23,794
Ocean	52,394	20,058	7,046	939	3,088	1,147	1,896	244	321	1,467	609	15,579
Passaic	189,715	127,055	10,498	1,680	8,623	788	2,644	1,384	3,348	1,496	7,892	24,307
Salem	3,825	2,153	457	60	32	49	60	46	36	148	35	749
Somerset	63,214	22,593	4,194	6,312	3,018	1,041	2,184	1,077	2,243	1,430	1,375	17,747
Sussex	11,218	3,949	1,210	201	752	319	270	70	38	484	388	3,537
Union	171,336	92,910	7,745	3,279	9,014	17,394	4,499	943	1,712	4,159	1,873	27,808
Warren	8,040	3,087	714	148	506	310	84	43	73	313	97	2,665
NJ Total	2,001,690	967,741	116,365	84,345	74,663	72,870	66,851	55,340	47,324	47,225	47,052	421,914
Source: U.S. Census Bureau, Census 2000 Summary File 3, QT-P16												

Table 11C
Total Households, Households Linguistically Isolated and
Foreign Language Spoken in Household by County,
New Jersey, 2000

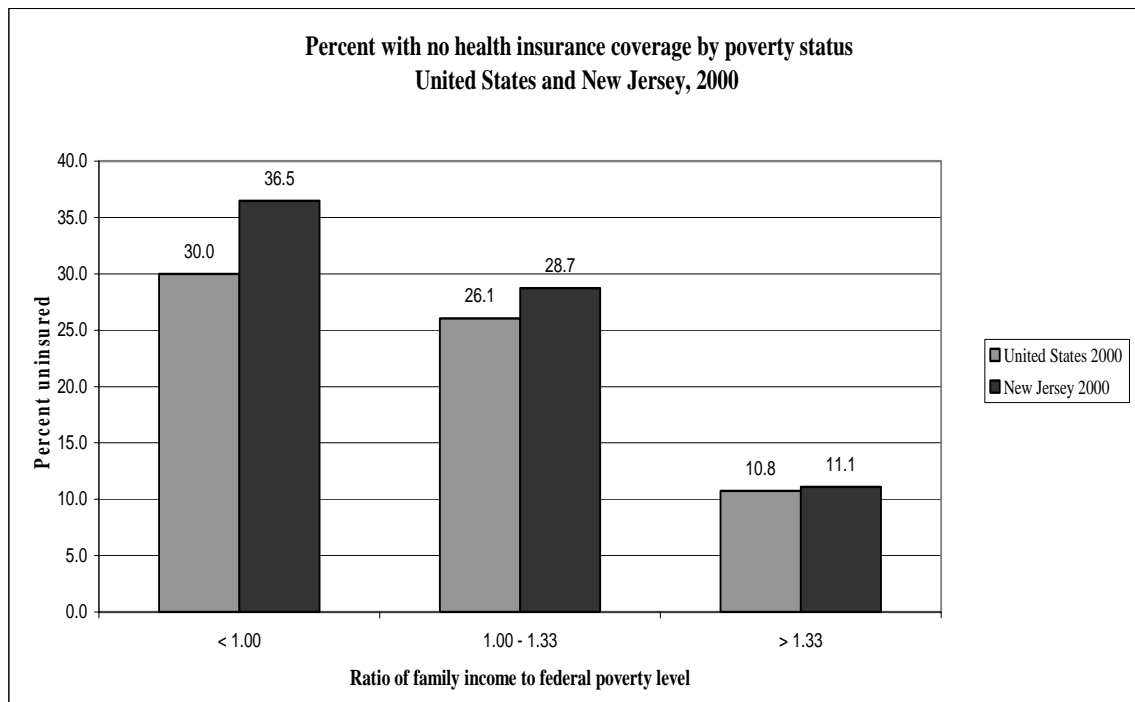
County	Total Households	Languages of Households Linguistically Isolated			
		Spanish	Other Indo-European	Asian and Pacific Islander	Other Languages
Atlantic	95,025	2,471	1,206	931	97
Bergen	330,891	6,319	8,880	9,145	903
Burlington	154,571	647	1,279	765	92
Camden	185,837	3,524	1,283	1,298	114
Cape May	42,140	318	241	19	23
Cumberland	49,096	1,788	433	65	40
Essex	283,692	11,492	8,531	1,357	510
Gloucester	90,755	256	436	129	45
Hudson	230,698	29,236	6,463	2,951	1,341
Hunterdon	43,730	188	232	66	19
Mercer	125,787	2,896	2,255	725	158
Middlesex	265,898	7,363	5,990	3,748	1,051
Monmouth	224,447	2,666	2,328	1,192	132
Morris	169,794	2,742	1,818	1,410	107
Ocean	200,553	1,693	2,351	332	174
Passaic	163,917	13,009	4,548	873	706
Salem	24,316	199	110	28	21
Somerset	109,070	2,124	1,392	980	208
Sussex	50,789	119	314	64	57
Union	186,093	10,427	6,059	800	330
Warren	38,675	148	276	37	30
NJ Total	3,065,774	99,625	56,425	26,915	6,158

Source: U.S.Census Bureau, Census 2000, Summary File 3.

Table 12
Changes in Poverty Rate by County
New Jersey, 1989 to 1999

	Poverty Rate		
	1989	1999	% Change
	7.60%	8.5%	7.5%
New Jersey			
Atlantic	9.4%	10.5%	9.5%
Bergen	3.9%	5.0%	4.0%
Burlington	4.2%	4.7%	3.7%
Camden	10.3%	10.4%	9.4%
Cape May	8.3%	8.6%	7.6%
Cumberland	13.0%	15.0%	14.0%
Essex	14.3%	15.6%	14.6%
Gloucester	6.2%	6.2%	5.2%
Hudson	14.8%	15.5%	14.5%
Hunterdon	2.6%	2.6%	1.6%
Mercer	7.4%	8.6%	7.6%
Middlesex	5.1%	6.6%	5.6%
Monmouth	5.0%	6.3%	5.3%
Morris	2.8%	3.9%	2.9%
Ocean	6.0%	7.0%	6.0%
Passaic	10.0%	12.3%	11.3%
Salem	10.6%	9.5%	8.5%
Somerset	2.6%	3.8%	2.8%
Sussex	3.4%	4.0%	3.0%
Union	7.2%	8.4%	7.4%
Warren	5.4%	5.4%	4.4%
Source: 2000 Census of Population & Housing, Summary File 3.			
Prepared by: New Jersey State Data Center, New Jersey Department of Labor, August, 2002.			

Figure 1



Source: Current Population Survey, March 2001 and March 2000.

CHAPTER 2

The estimation of prevalence of diabetes is an important step in determining the burden of the disease on the population and provides guidance to what extent resources should be expended on diabetes relative to other health conditions. Prevalence rates can also demonstrate which demographic population groups are most at risk for diabetes and plans can be made for allocating scarce resources for preventive and treatment interventions.

Diabetes prevalence rates in New Jersey have been estimated for demographic, socioeconomic, and other characteristics, such as race, ethnicity, age, gender, obesity, residence, income, and education. It is estimated that about 444,000 New Jersey residents have been diagnosed with diabetes. The data tables presented in this chapter are confined to diagnosed diabetes. Using model-based estimates calculated from the National Health and Nutrition Examination Survey (NHANES), it is further calculated that about 178,000 have diabetes but are unaware that they have the disease. New Jersey specific estimates of the number of people with pre-diabetes are also not presented in the tables. People with pre-diabetes have an impaired fasting glucose in which the fasting blood sugar level is elevated (100 to 125 milligrams per deciliter or mg/dL), after an overnight fast, but is not high enough to be classified as diabetes. According to the American Diabetes Association, nationally, about 41 million people, ages 40 to 74, have pre-diabetes. This figure is more than double the combined national estimates for the number of people with diagnosed and undiagnosed diabetes.

We are rapidly approaching the time when a half a million people in New Jersey will have been diagnosed with diabetes. Yet, in considering the undiagnosed population and the population with pre-diabetes, the known diagnosed figure is truly just the tip of the iceberg.

- According to Behavior Risk Factor Surveillance System (BRFSS) survey results for the time period 2001 through 2003, New Jersey had an estimated 444,000 persons 18 years and over diagnosed with diabetes, for an age adjusted rate of 6.5% of the adult population. Non-Hispanic blacks had the highest age-adjusted rate of persons diagnosed with diabetes at 11.3%. For the same time period, non-Hispanic whites had the lowest age adjusted rate at 5.4%. Non-Hispanic Asian and Pacific Islanders had a rate of 9.2%. Hispanic Americans in New Jersey had an age-adjusted rate of 6.6% (Table 1 and Figure 1).
- Aggregate data from the 2001-2003 BRFSS surveys also indicated that New Jersey male residents had a higher rate of diagnosed diabetes (7.2%) than female residents (6.6%). Although rates were higher among males, there were a greater estimated number of New Jersey females diagnosed with diabetes (223,000) than males (221,000). Surprisingly, the BRFSS data indicate that the rate of individuals diagnosed with diabetes for both genders in the 18 through 44 age group showed no difference at 2.3%. The survey data also indicate that in the 45 through 64 year old age group, the black, non-Hispanic race category had the highest estimated prevalence rate at 16.1%, followed by Asian or Pacific Islanders, non-Hispanic category at 13.9%. The black, non-Hispanic race category also had the highest rate of diagnosed diabetes (29%) in the 65 years and over age group (Table 2).
- The 2001 through 2003 BRFSS survey results also showed that the highest rate of diagnosed diabetes in all race, gender, and age categories (34.9%) was in the 65 and over black, non-

Hispanic male group. The second highest rate (25.7%) was found among black, non-Hispanic females in the same age group (Table 3).

- The referenced survey results also indicated that New Jerseyans of Hispanic ethnicity had the lowest estimated mean age at the time of diabetes diagnosis at 41.2 years. This may be due to factors such as the high rate of immigration and the age distribution of this population (Table 4).
- The New Jersey BRFSS 2001 through 2003 survey data also suggested that Cumberland County had the highest age-adjusted rate of persons diagnosed with diabetes at over 10.6%, followed by Atlantic and Union counties. Thirteen of New Jersey's 21 counties fall within the range of 4.8% to 6.7% (Figure 2).
- The counties of Middlesex, Essex, and Bergen had the greatest number of residents diagnosed with diabetes, with each having about 33,000 or more residents with diabetes. The Sussex, Salem, Hunterdon, Cape May, Somerset, and Warren counties had the least number of residents diagnosed with diabetes, ranging from 4,200 to 13,776 residents (Figure 3).
- Further analysis of the BRFSS data showed that there was an inverse relationship between education and diabetes prevalence rates. Individuals with less than a high school education had the highest diabetes prevalence rate at 12.5% and individuals that had at least a college education had a rate of only 4.7% (Figure 4).
- An inverse relationship also existed between income level and the rate of diabetes diagnosis. Individuals with an income level less than \$15,000 had the highest diabetes prevalence rate at 15.3% and individuals with an income level of over \$75,000 had a rate of only 3.6% (Figure 5). Do we look at Obesity by income and education.
- New Jersey and United States BRFSS diabetes data reflected similar trends for the 1991 through 2003 time period. The prevalence of diabetes in the United States ranged from 4.8% in 1991 to 7.1% in 2003. Likewise, New Jersey rates ranged from 4.3% in 1991 to 7.1% in 2003 (Figure 6).
- Although the rates of diagnosed diabetes had increased with age, the estimated number of persons diagnosed was highest in the 45 through 64 year age group because of the size of the age group. The estimate for that age group was about 186,000 persons diagnosed as compared to 181,000 diagnosed for the 65 and over group (Table 2 and Figure 7).
- For New Jersey and the nation as a whole, increases in the rates of diabetes have paralleled increases in rates of obesity between 1991 and 2002. Since 1991, the New Jersey rates of diagnosed diabetes and obesity increased by 42% and 92% respectively. Nationally, the rates of diagnosed diabetes and obesity have increased by 40% and 75%, respectively, since 1991 (Figure 8).

Table 1 Estimated Diabetes Age Adjusted Prevalence Rates by Race/Ethnicity New Jersey, 2001 through 2003			
Race/Ethnicity	Number	Rate	95% CL
All Racial/Ethnic Classifications	441,062	6.5	(6.1-6.9)
White, Non-Hispanic	270,354	5.4	(5.0-5.9)
Black, Non-Hispanic	82,098	11.3	(9.7-13.3)
Asian or Pacific Islander, Non-Hispanic	21,934	9.2	(6.9-12.1)
Other, Non-Hispanic	14,154	9.7	(6.4-14.6)
Hispanic	44,147	6.6	(5.4-8.0)
Source: New Jersey Behavioral Risk Factor Survey.			

Table 2 Estimated Number and Rate of Persons Diagnosed with Diabetes by Age, Gender, and Race/Ethnicity New Jersey, 2001 through 2003				
Gender	Age			
	18 - 44	45 - 64	65 & Over	Total
Male				
Population	1,617,215	984,172	463,897	3,089,609
Diagnosed	37,484	100,589	82,155	221,107
Rate	2.3%	10.2%	17.7%	7.2%
95% Confidence Interval	(1.8-3.0)	(8.9-11.7)	(15.5-20.2)	(6.5-7.9)
Female				
Population	1,605,068	1,042,851	693,409	3,393,334
Diagnosed	36,540	85,511	98,782	227,727
Rate	2.3%	8.2%	14.2%	6.6%
95% Confidence Interval	(1.8-2.9)	(7.1-9.4)	(12.5-16.2)	(6.0-7.2)
Race/Ethnicity				
White, Not Hispanic				
Population	1,895,636	1,401,450	940,007	4,279,710
Diagnosed	38,054	100,985	131,316	272,324
Rate	2.0%	7.2%	14.0%	6.4%
95% Confidence Interval	(1.6-2.6)	(6.4-8.1)	(12.6-15.5)	(5.9-6.9)
Black, Not Hispanic				
Population	382,282	232,983	106,092	726,999
Diagnosed	13,847	337,479	30,772	82,449
Rate	3.6%	16.1%	29.0%	11.3%
95% Confidence Interval	(2.5-5.1)	(12.5-20.5)	(22.2-36.8)	(9.5-13.4)
Asian or Pacific Islander, Not Hispanic				
Population	239,339	100,189	16,390	360,956
Diagnosed	3,989	13,883	*	21,934
Rate	1.7%	13.9%	*	6.1%
95% Confidence Interval	(.08-3.3)	(9.0-20.7)	*	(4.4-8.4)
Other, Not Hispanic				
Population	76,137	52,436	21,107	151,648
Diagnosed	3,503	5,475	5,175	14,190
Rate	4.6%	10.4%	24.5%	9.4%
95% Confidence Interval	(1.4-14.2)	(5.98-17.8)	(12.8-41.8)	(6.1-14.2)
Hispanic				
Population	587,022	218,040	60,941	868,618
Diagnosed	11,113	25,202	7,832	44,147
Rate	1.9%	11.6%	12.9%	5.1%
95% Confidence Interval	(1.2-2.9)	(8.9-14.9)	(8.5-19.0)	(4.2-6.2)
NJ Total				
Population	3,222,283	2,027,022	1,157,306	6,482,943
Diagnosed	74,024	186,100	180,937	443,834
Rate	2.3%	9.2%	15.6%	6.8%
95% Confidence Interval	(1.9-2.8)	(8.3-10.1)	(14.2-17.1)	(6.4-7.3)
Source: New Jersey Behavioral Risk Factor Survey.				
* The estimated number of New Jersey residents sampled in this group was too small to provide estimates.				

Table 3
Estimated Prevalence of Persons Diagnosed with Diabetes by Race/Ethnicity, Gender, and Age
New Jersey, 2001 through 2003

Age/Gender	White, Non-Hispanic		Black, Non-Hispanic		Asian or Pacific Islander, Non- Hispanic		Other, Non-Hispanic		Hispanic	
Male										
18-44	2.0	(1.4-2.9)	3.2	(1.7-5.7)	2.5	(1.1-5.4)	8.7	(2.3-27.8)	1.9	(1.0-3.5)
45-64	8.7	(7.4-10.2)	14.4	(9.0-22.3)	15.3	(8.6-25.7)	10.5	(4.5-22.7)	14.4	(9.0-22.3)
65+	16.3	(14.1-18.8)	34.9	(23.6-48.3)	*	*	*	*	12.3	(5.4-25.4)
All Ages	7.0	(6.3-7.8)	10.8	(8.0-14.3)	7.1	(4.6-10.6)	10.4	(5.3-19.2)	4.7	(3.5-6.4)
Female										
18-44	2.0	(1.4-2.8)	4.0	(2.6-6.1)	0.5	(0.2-1.9)	1.0	(0.2-4.8)	1.9	(1.1-3.2)
45-64	5.7	(4.8-6.9)	17.3	(12.9-22.9)	11.7	(6.2-21.1)	10.4	(4.8-21.0)	11.2	(7.8-15.9)
65+	12.4	(10.7-14.3)	25.7	(17.8-35.5)	*	*	*	*	13.1	(8.1-20.6)
All Ages	5.8	(5.20-6.5)	11.8	(9..5-15.5)	4.6	(2.8-7.7)	8.4	(4.9-14.2)	5.4	(4.2-7.0)

Source: New Jersey Behavioral Risk Factor Survey.

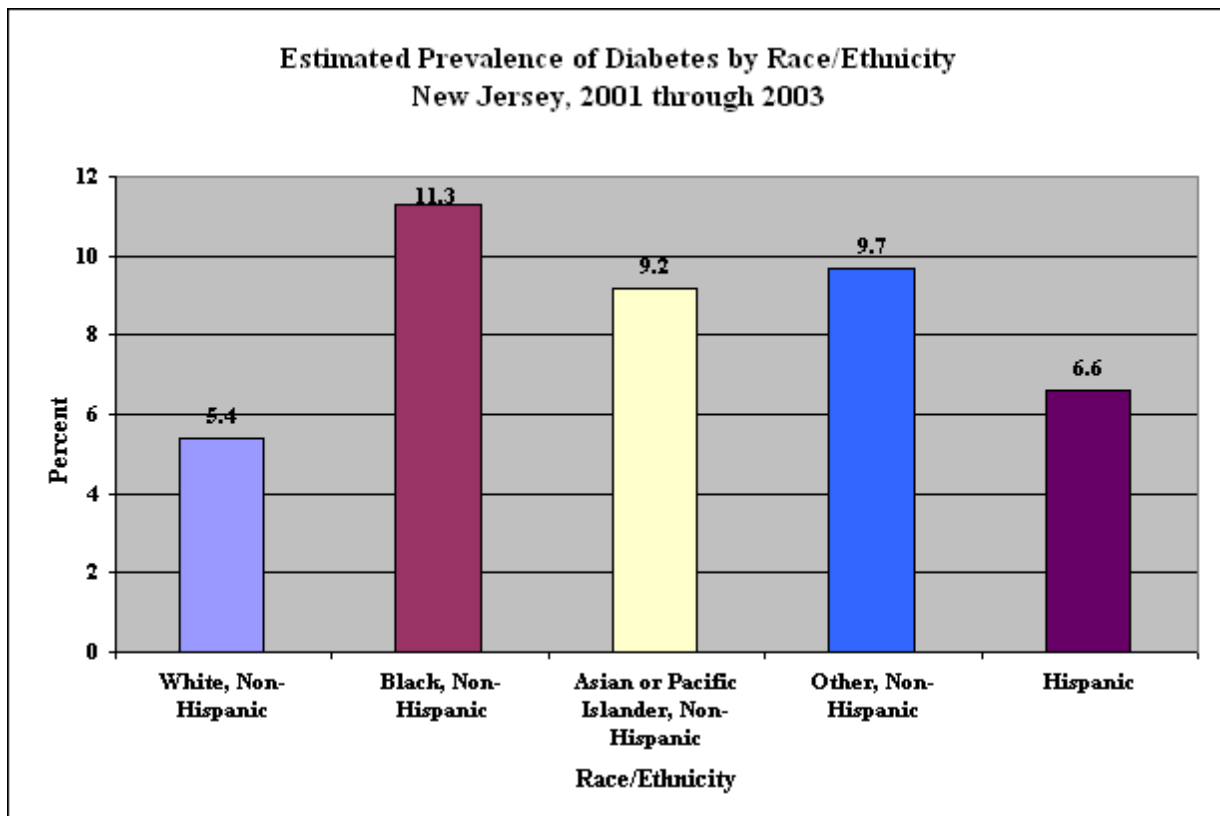
* The number of New Jersey residents sampled in this group was too small to derive reliable prevalence estimates.

Table 4
Estimated Mean Age at the Time of Diagnosis of Diabetes
by Race and Hispanic Origin, Persons 18 Years and Older
New Jersey, 2001 through 2003

Gender, Race/Ethnicity	Mean Age	95% CI
Male	50.6	(48.0-53.1)
Female	49.4	(46.8-52.0)
White, Non-Hispanic	51.4	(49.2-53.5)
Black, Non-Hispanic	51.1	(47.2-55.0)
Other	50.3	(46.0-54.5)
Hispanic	41.2	(36.9-45.6)
Total	49.9	(48.1-51.8)

Source: New Jersey Behavioral Risk Factor Survey.

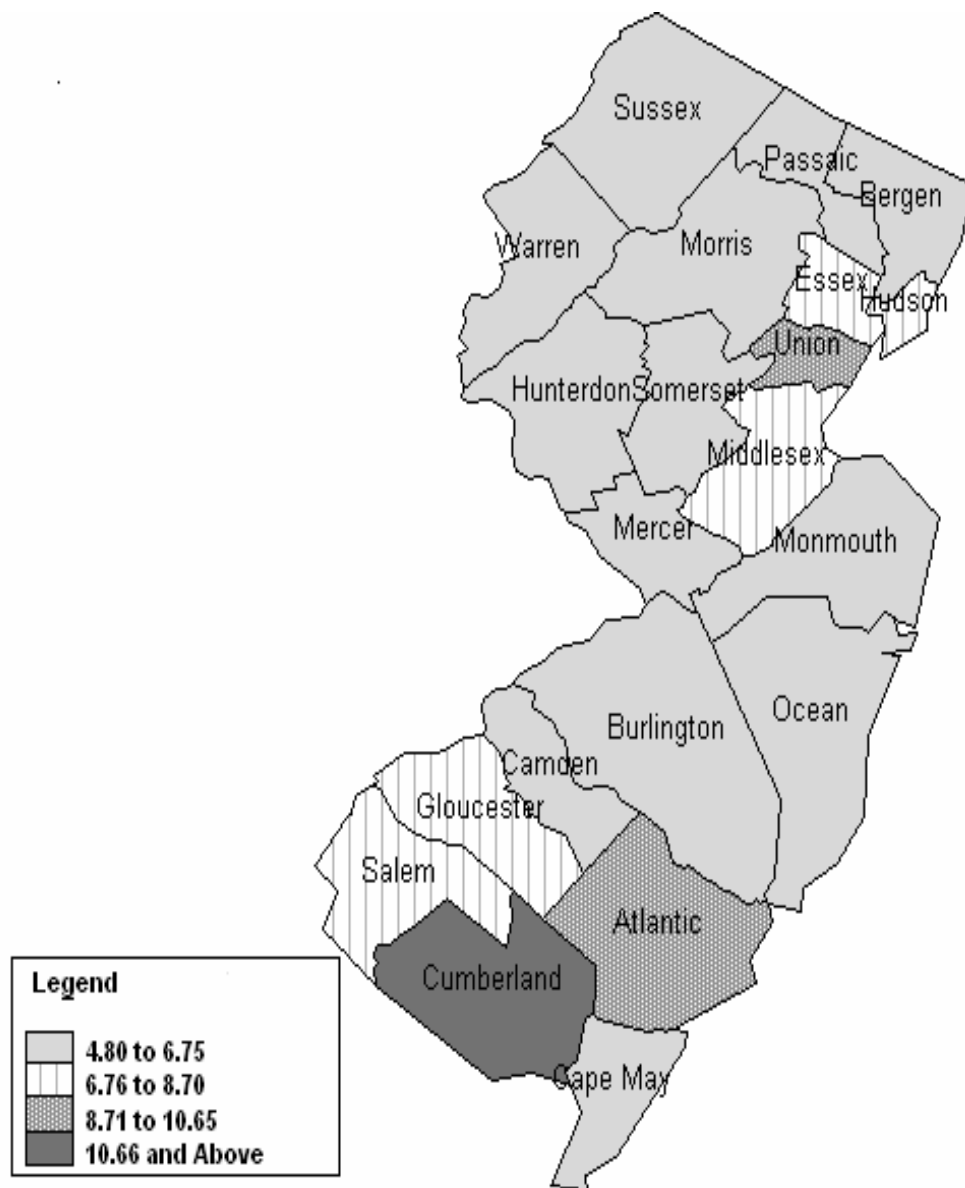
Figure 1



Source: New Jersey Behavioral Risk Factor Survey.

Figure 2

**Estimated Age Adjusted Rate* of Persons 18 Years and Over
with Diagnosed Diabetes by County
New Jersey, 2001 through 2003**

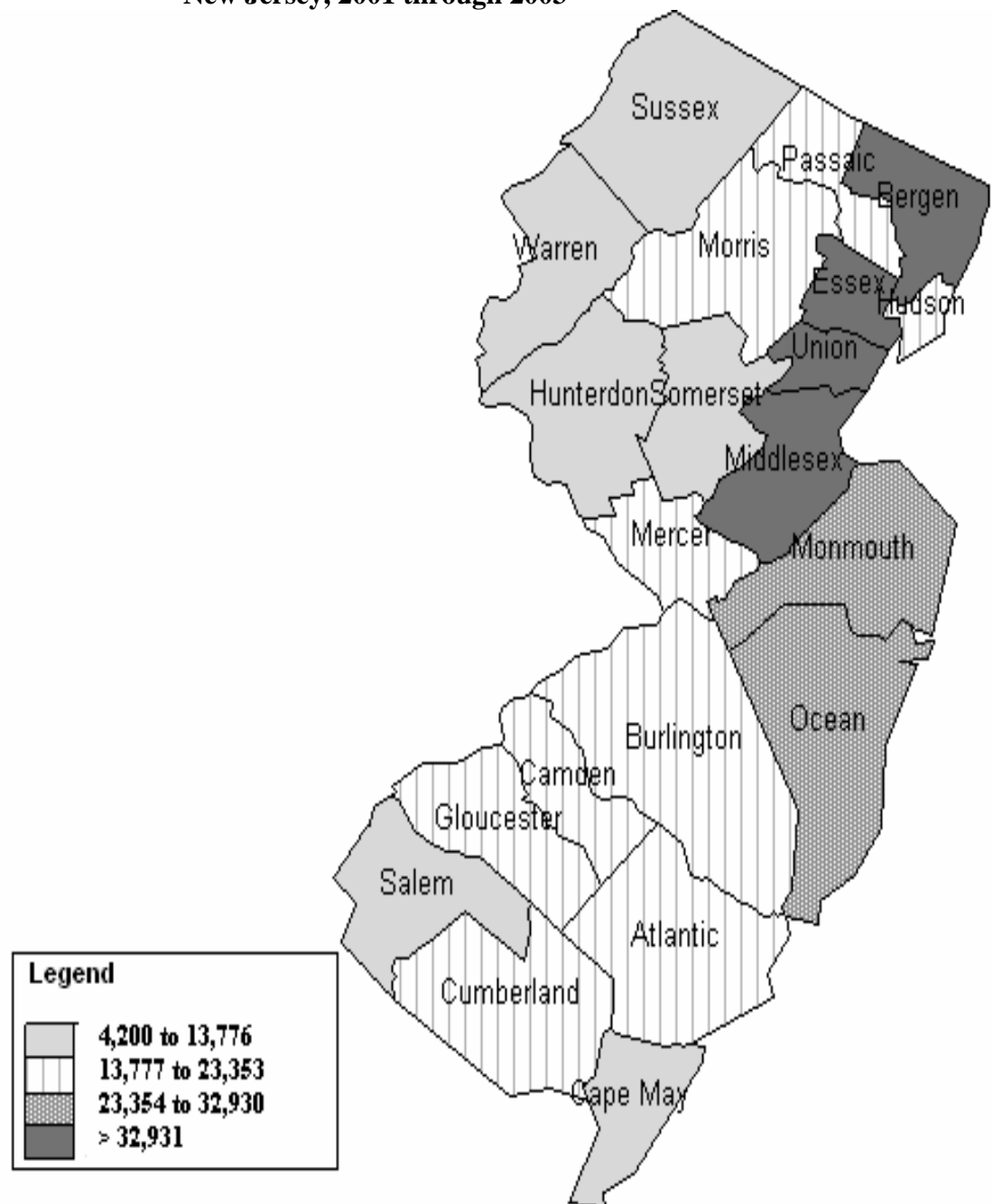


Source: New Jersey Behavioral Risk Factor Survey.

* Rate/100 population

Figure 3

**Estimated Number of Persons 18 Years and Over
Diagnosed with Diabetes by County
New Jersey, 2001 through 2003**



Source: New Jersey Behavioral Risk Factor Survey.

Figure 4

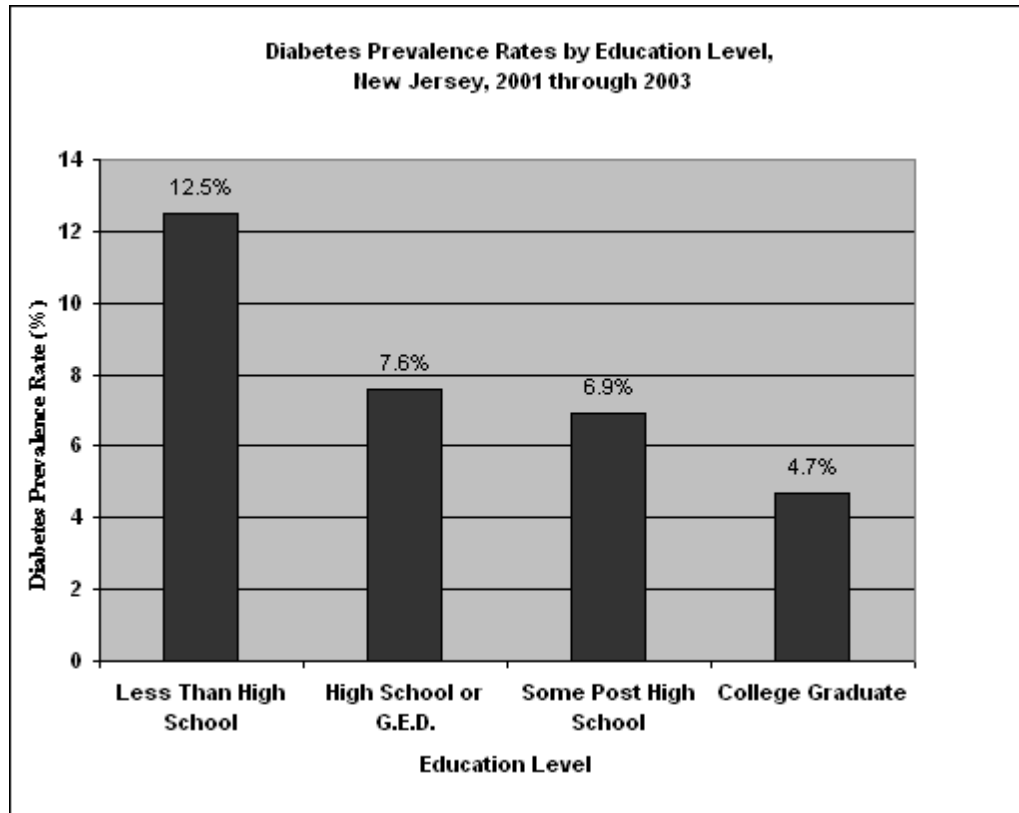
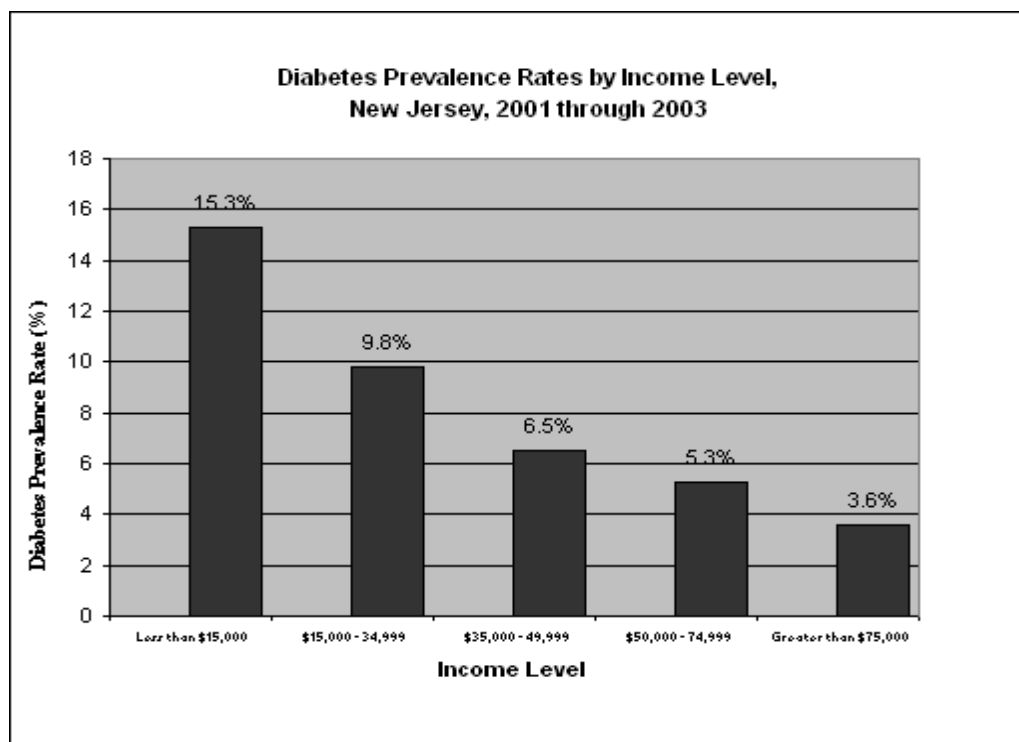
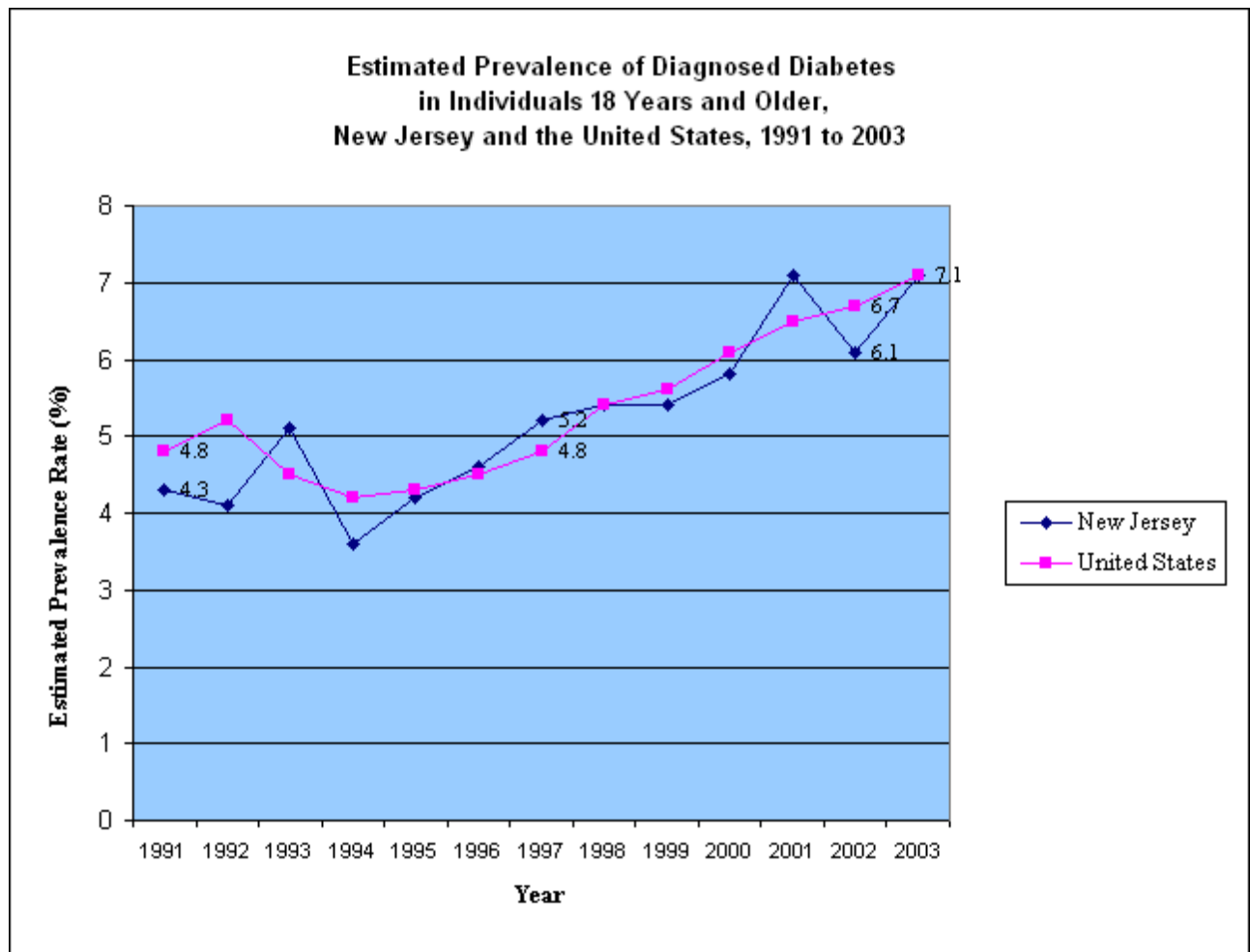


Figure 5



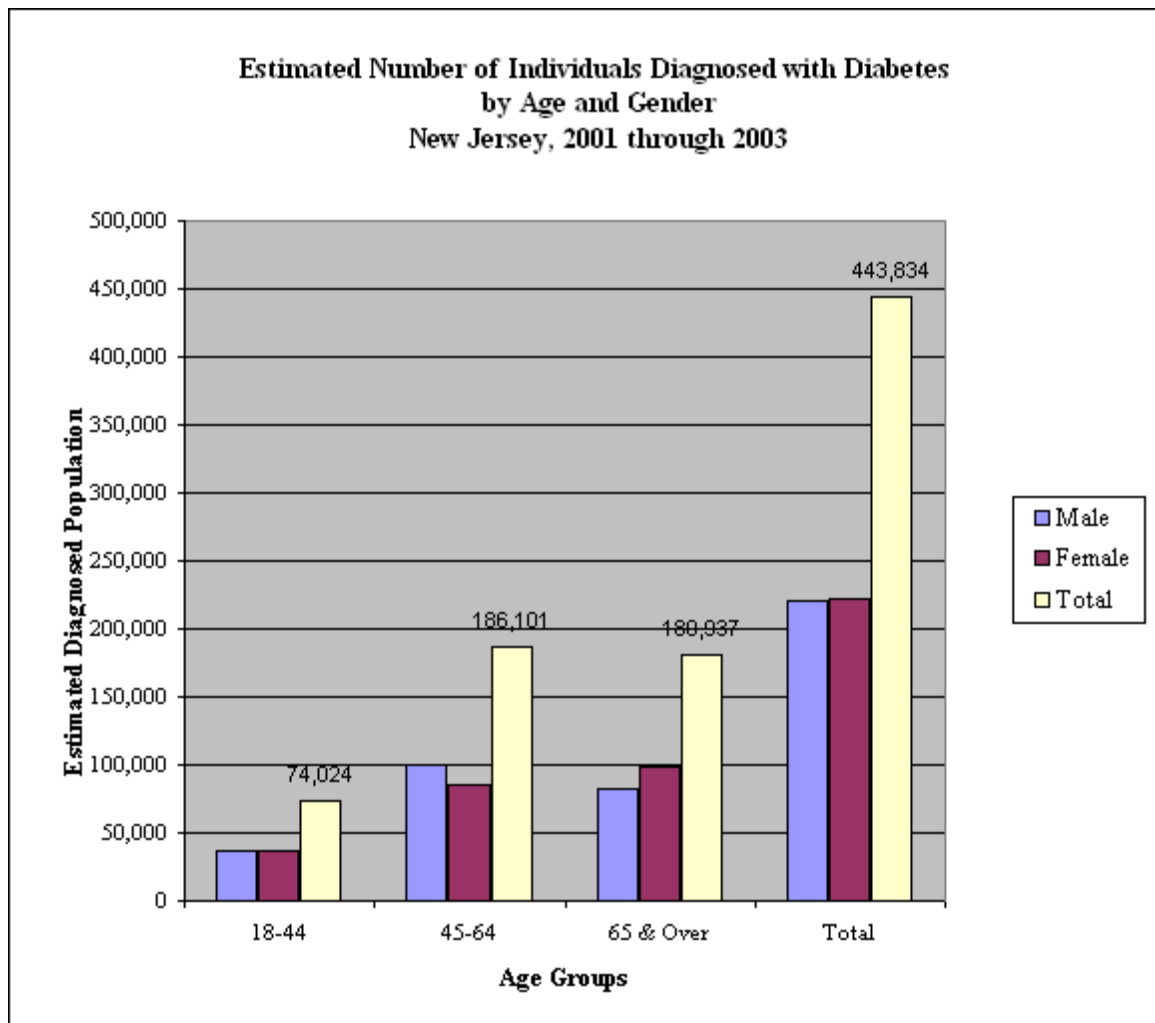
Source: New Jersey Behavioral Risk Factor Survey.

Figure 6



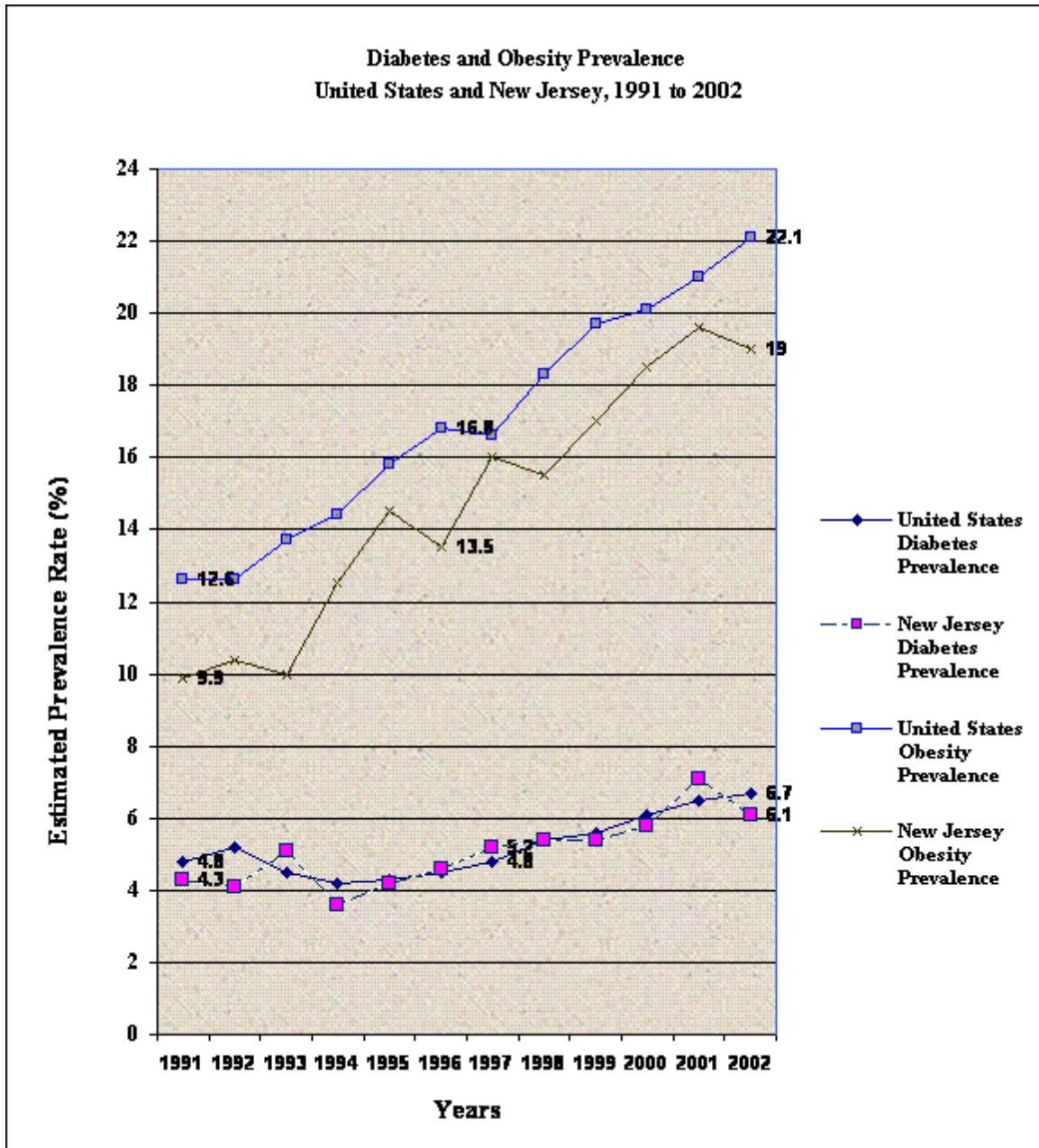
CDC: Behavioral Risk Factor Survey System, 1991 to 2002.

Figure 7



Source: New Jersey Behavioral Risk Factor Survey.

Figure 8



CDC: Behavioral Risk Factor Surveillance System, 1991 to 2002.

CHAPTER 3

Diabetes as a complication of pregnancy, whether pre-existing or gestational diabetes mellitus (GDM), is an important public health concern. Pre-existing diabetes comprises approximately ten percent of cases of diabetes in pregnancy; correspondingly the remaining 90 percent of cases are classified as gestational diabetes mellitus. Increases in the prevalence of diabetes mellitus in the female population age 15-44 have been documented in national health statistics and New Jersey data as well.¹

GDM is defined as any degree of glucose intolerance that either has its onset or is first recognized during pregnancy.² This definition is used whether the mother is treated with diet modification alone or with insulin. The diagnosis of GDM applies whether or not the condition persists after pregnancy. It does not exclude the possibility that unrecognized glucose intolerance may have started before the pregnancy rather than concomitantly with the pregnancy. In the United States, the current guideline for detection and diagnosis of GDM calls for glucose testing in the presence of certain risk factors.

Pre-existing diabetes mellitus, whether type 1 or type 2, is associated with an increased risk of both maternal complications and adverse pregnancy outcomes affecting the fetus. Higher rates of major congenital malformations, prematurity, fetal growth restrictions, and, to a lesser extent, spontaneous abortions are observed in pregnancies complicated by pre-existing diabetes.³ Congenital malformations occur in the first trimester; thus rates are not increased in GDM which usually has its onset in the latter half of pregnancy. Fetal macrosomia (excessively large infant) is a potential adverse fetal effect of either pre-existing or gestational diabetes. Macrosomia increases the risk of birth trauma and is linked with an increased risk of childhood, and later, obesity. Of growing concern is the fact that epidemiologic and experimental data are accumulating that identify interactions between the fetal genome and specific in-utero nutrient availabilities. These interactions may result in the development of insulin receptors that are patterned in ways that may lead to insulin resistance and adverse metabolic consequences later in life for offspring of diabetic mothers.⁴

There is also growing epidemiologic and metabolic study evidence that GDM is likely to represent a stage in a continuum from pre-pregnancy insulin resistance, to GDM while pregnant, to post-pregnancy type 2 diabetes. Post-pregnancy type 2 diabetes may not be clinically manifest until a decade after the affected pregnancy in some women.^{5,6}

Maternal risks for women with pre-existing diabetes include development or worsening of diabetic retinopathy, worsening of pre-existing nephropathy, and development of pre-eclampsia. Optimal maternal medical care can reduce perinatal mortality rates for babies of women with diabetes to levels nearly equivalent to those observed in normal pregnancies. Furthermore, there is evidence suggesting that tight control of diabetes prior to conception and throughout the first trimester reduces the rate of congenital malformations. Thus, critical issues for women with pre-existing diabetes include pre-conception counseling and metabolic control as well as an early pregnancy diabetes control program.⁷

¹ NJ DOH Data

² Diabetes Care, Vol. 27, Supplement 1, Jan. 2004; *Gestational Diabetes Mellitus- Clinical Practice Recommendations of the American Diabetes Association.*

³ Diabetes Care, Vol. 27, Supplement 1, Jan. 2004; *Preconception Care of Women with Diabetes- Clinical Practice Recommendations of the American Diabetes Association.*

⁴ Van Assche F,Holemans K,Aerts L : *Long Term consequences for offspring of diabetes during pregnancy.* British Medical Bulletin 2001;60:173-182

⁵ Verma, et.al. *Insulin Resistance Syndrome in Women with Prior History of Gestational Diabetes Mellitus.* J Clin Endocrinol Metab 76:3227-3235, 2002.

⁶ Kousta, et.al. *Insulin Resistance and Beta Cell dysfunction in normoglycemic European women with a history of gestational diabetes.* Clinical Endocrinology (2003) 59: 289-297

⁷ (same as reference 5) Diabetes Care, Vol. 27, Supplement 1, Jan. 2004; *Preconception Care of Women with Diabetes- Clinical Practice Recommendations of the American Diabetes Association.*

- According to the New Jersey Behavior Risk Factor Surveillance System (BRFSS), diabetes affected about 2% of women in their child bearing years. This does not include females reported to have had diabetes only during pregnancy. Black, non-Hispanic females in the 18 years to 44 age group were reported to have the highest rate of diabetes at 2.7% (Table 1).
- Data from the New Jersey Department of Health and Senior Services, Center for Health Statistics for the year 2000 indicate that diabetes as a medical risk during pregnancy varied by county from 30.0 per 1,000 births in Cape May County to 56 per 1,000 births in Middlesex. The differences among county rates possibly may be explained by county demographics and hospital data collection procedures. Also small denominators may have artificially inflated or deflated some rate calculations (Table 2).
- New Jersey (BRFSS) data from 1995 to 2002 for females indicated that females who reported ever having been told they had diabetes but only during pregnancy had ranged from a low of 1.1 per 100 respondents in 1995 to 3.9 per 100 respondents in 2002 (Table 3).
- Data as reported on New Jersey's resident live birth certificates showed an increase in rates of diabetes as a medical risk during pregnancy from 40 per 1,000 New Jersey births in 1998 to 44.5 per 1,000 births in 2002. Asian and Pacific Islanders of non-Hispanic ethnicity had the highest rate per 1,000 births; 79.0 per 1,000 New Jersey births in 1998 and 90.7 per 1,000 births in 2002 (Table 4).
- Data on the residents live birth certificates indicated that diabetes as a medical risk during pregnancy especially affected older birthing mothers. In the 2002 data, only 23 per 1,000 birthing mothers in the 20 to 24 age group had diabetes as a medical risk during pregnancy. In comparison, 86 per 1,000 birthing mothers in the 40 and over age group had diabetes as a medical risk for the same year (Table 5 and Figure 1).

- Data from the residents live birth file for the five year time period 1996 to 2000 showed that the rates of diabetes as a medical risk were associated with the birthing mother's racial and ethnic make up. For the years 1996 to 2000, Asian Indian birth mothers had the highest rate of diabetes as a medical risk of pregnancy (89.1 per 1,000 births) of all racial groups. The total New Jersey birthing mother population had a rate of 38.1 per 1,000 births over the same time period (Table 6).
- The 2000 residents live birth file also indicated that birthing mothers with diabetes as a medical risk had an 11.8% increased risk of having a medical complication at delivery and a 51.6% increased risk of having a primary C-section delivery (Table 7).
- New Jersey residents live birth certificates data demonstrated that birthing mothers with diabetes as a medical risk during pregnancy had a 46.5% increased risk of having a macrocosmic child and 36% increased risk of delivering a low birth weight child. Also, birthing mothers with diabetes during pregnancy had a 69.2% increased risk of having an outcome defined as "Abnormal Condition of the Newborn" such as anemia, birth injury, fetal alcohol syndrome, hyaline membrane disease, meconium aspiration syndrome, assisted ventilation, and seizures (Table 8).
- New Jersey birthing mothers with diabetes during pregnancy had a 45.6% increased risk of having a delivery outcome defined as " Congenital Anomaly" such as anencephalus, spina bifida/meningocele, hydrocephalus, microcephalus, heart malformation, rectal atresia/stenosis, tracheo-esophageal fistula/esophageal atresia, omphalocele/gastroschisis, malformed genitalia, renal agenesis, cleft lip/palate, polydactyly/syndactyly/adactyly, club foot, diaphragmatic hernia, Down's syndrome, and other chromosomal anomalies (Table 8).

Table 1 Estimated Prevalence of Diabetes in Females 18 Through 44 Years of Age Who Reported Having Diabetes Except During Pregnancy by Race and Ethnicity, New Jersey, 2000 through 2002				
	Weighted Size	Number Diagnosed	Rate* Diagnosed	95% Confidence Level
All Race/Ethnicity Categories	1,601,933	30,641	1.9	(1.3 - 2.8)
Black, Non-Hispanic	198,621	5,350	2.7	(1.5 - 4.7)
White, Non-Hispanic	963,443	18,541	1.9	(1.2 - 3.1)
Hispanic	284,566	3,029	1.1	(0.5 - 2.3)
Other	133,388	385	0.3	(0.1 - 1.2)
Source: New Jersey Behavioral Risk Factor Surveillance System.				
* Rate/100 population.				

Table 2 Total and Percentage of Birthing Mothers With and Without Diabetes as a Medical Risk Factor of Pregnancy, and Rate of Diabetes as a Medical Risk Factor, by County, New Jersey, 2000					
County/Place	New Jersey Birthing Mothers		New Jersey Birthing Mothers with Diabetes as a Medical Risk		Rate* of Diabetes as a Medical Risk
	Number	% of Total of NJ Birthing Mothers	Number	% of Total of NJ Birthing Mothers with Diabetes	
Atlantic	2,983	2.95	130	3.1	43.6
Bergen	9,381	9.3	347	8.27	37.0
Burlington	4,216	4.17	144	3.43	34.2
Camden	5,702	5.64	206	4.91	36.1
Cape May	901	0.89	27	0.64	30.0
Cumberland	1,758	1.74	77	1.84	43.8
Essex	11,141	11.02	500	11.92	44.9
Gloucester	2,398	2.37	97	2.31	40.5
Hudson	7,804	7.72	320	7.63	41.0
Hunterdon	1,190	1.18	40	0.95	33.6
Mercer	4,216	4.17	177	4.22	42.0
Middlesex	9,546	9.44	535	12.76	56.0
Monmouth	7,054	6.98	235	5.6	33.3
Morris	5,568	5.51	220	5.25	39.5
Ocean	5,888	5.82	288	6.87	48.9
Passaic	7,394	7.31	268	6.39	36.2
Salem	532	0.53	**	**	**
Somerset	3,852	3.81	171	4.08	44.4
Sussex	1,451	1.43	77	1.84	53.1
Union	7,109	7.03	287	6.84	40.4
Warren	1,034	1.02	36	0.86	34.8
Total	101,118	100	4,194	100	41.5
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics. * Rate/1000 Births. ** The estimated number of New Jersey residents in this group was too small to derive reliable rates.					

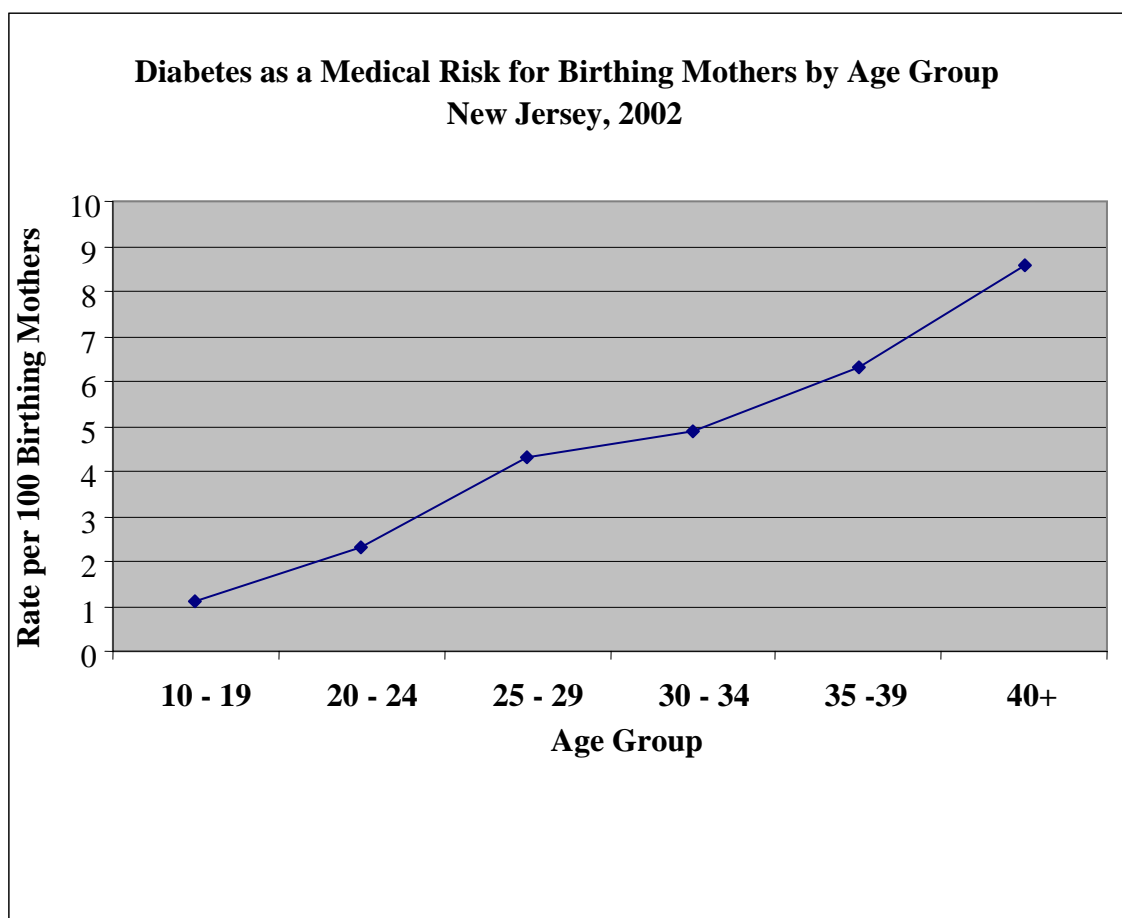
Table 3 Estimated Rates* of Females 18 Years Old and Over Who Reported Ever Having Been Diagnosed with Diabetes, but Only During Pregnancy, New Jersey, 1995 through 2002		
Year	Rate*	95% Confidence Level
1995	2.2	(0.9 - 3.5)
1996	1.1	(0.5 - 1.8)
1997	1.6	(0.8 - 2.4)
1998	1.1	(0.5 - 1.7)
1999	1.4	(0.8 - 1.9)
2000	1.7	(1.1 - 2.2)
2001	2.3	(1.7 - 2.8)
2002	3.9	(2.3 - 5.4)
CDC Behavioral Risk Factor Surveillance System, New Jersey Data 1995 through 2002. * Rate/100 Population.		

Table 4 Rates* of Diabetes as a Medical Risk Factor of Pregnancy as Reported on Certificates of Live Birth, by Maternal Race and Hispanic Origin, New Jersey, 1998 - 2002					
Year	Total	White, Non-Hispanic	Black, Non-Hispanic	Hispanic	Asian/Pacific Islander, Non-Hispanic
1998	40.0	36.0	40.0	42.0	79.0
1999	38.0	34.0	40.0	38.0	74.0
2000	40.0	36.0	43.0	39.0	79.0
2001	43.3	38.1	43.2	41.8	83.6
2002	44.5	37.0	44.0	45.7	90.7
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics. * Rate/1000 Births.					

Table 5 Number and Rates* of Birthing Mothers with Diabetes as a Medical Risk Factor of Pregnancy as Reported on Certificates of Live Birth, by Year and Selected Age Groups New Jersey, 1998 - 2002								
	Total		Rates of Diabetes as a Medical Risk by Age Group					
	Number	Rate	10 - 19	20 - 24	25 - 29	30 - 34	35 -39	40+
1998	4,564	40	12	22	36	45	61	83
1999	4,294	38	10	21	36	42	55	73
2000	4,657	40	10	21	36	46	59	80
2001	5,014	43	11	23	40	49	63	77
2002	5,095	44	11	23	43	49	63	86

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics.
 * Rate/1000 Births.

Figure 1



Source: New Jersey Department of Health and Senior Services, Center for Health Statistics.

Table 6
Numbers and Rates of Birthing Mothers and Birthing Mothers with Diabetes as a Medical Risk Factor of Pregnancy by Year
New Jersey, 1996 - 2000

Race	1996		1997		1998		1999		2000		Total 1996 - 2000		
	Frequency		Frequency		Frequency		Frequency		Frequency		Frequency		Avg. Rate* per 1000 Births for Five Years
	Number of Birthing Mothers	Diabetes as a Medical Risk Factor	Number of Birthing Mothers	Diabetes as a Medical Risk Factor	Number of Birthing Mothers	Diabetes as a Medical Risk Factor	Number of Birthing Mothers	Diabetes as a Medical Risk Factor	Number of Birthing Mothers	Diabetes as a Medical Risk Factor	Number of Birthing Mothers	Diabetes as a Medical Risk Factor	
White, Non-Hispanic	63,180	2,011	61,638	1,956	60,597	2,128	57,213	1,926	54,540	1,987	297,168	10,008	33.7
Black, Non-Hispanic	18,413	605	18,285	648	18,263	722	17,710	705	17,030	731	89,701	3,411	38.0
Indian/American, Non-Hispanic	183	*	140	*	132	11	131	*	127	6	713	29	40.7
Asian and Pacific Islander, Non-Hispanic:	6,575	414	6,886	496	7,190	551	7,471	539	8,204	640	36,326	2,640	72.7
Chinese	1,185	78	1,219	94	1,265	97	1,249	93	1,445	122	6,363	484	76.1
Japanese	273	7	250	10	256	6	236	*	220	11	1,235	38	30.8
Hawaiian, Samoan and Guamanian	18	*	24	*	17	*	13	0	20	0	92	*	43.5
Filipino	1,274	79	1,312	82	1,322	111	1,312	96	1,300	90	6,520	458	70.2
Asian Indian	2,160	177	2,431	215	2,746	263	3,018	257	3,302	305	13,657	1,217	89.1
Korean	731	18	732	19	679	13	654	15	813	29	3,609	94	26.0
Vietnamese	245	11	284	17	277	11	332	14	346	22	1,484	75	50.5
Other Asian/Pacific Islander	689	43	634	58	628	48	657	60	758	61	3,366	270	80.2
Race not Stated	329	11	262	10	373	17	396	15	356	15	1,716	68	39.6
Other	418	21	505	38	611	42	612	39	271	18	2,417	158	65.4
Hispanic:	18,773	654	18,934	699	19,638	808	20,365	760	20,590	797	98,300	3,718	37.8
Mexican	2,252	64	2,357	83	2,645	97	3,058	118	3,199	136	13,511	498	36.9
Puerto Rican	6,927	266	6,687	273	6,773	300	6,696	259	6,457	265	33,540	1,363	40.6
Cuban	819	39	855	32	833	32	788	28	807	27	4,102	158	38.5
Central or South America	8,608	282	8,809	300	9,081	362	9,554	346	9,921	365	45,973	1,655	36.0
Other Hispanic Country	167	*	226	11	306	17	269	9	206	*	1,174	44	37.5
Total	107,871	3,720	106,650	3,852	106,804	4,279	103,898	3,987	101,118	4,194	526,341	20,032	38.1

Source: New Jersey Department of Health and Senior Services, Center for Health Statistics. Public use Birth Files 1996 through 2000.

* Events that occur five or fewer times are not reportable.

Table 7 Number and Rate of Labor and Delivery Complications and Primary Caesarian Section Deliveries for Birthing Mothers With and Without Diabetes as a Medical Risk Factor of Pregnancy New Jersey, 2000					
Complications/Method of Delivery	Birthing Mothers without Diabetes		Birthing Mothers with Diabetes		Increased Risk for Mothers with Diabetes
	Number	Rate*	Number	Rate*	
Febrile (>100 F. or 38 C.)	1,870	19.3	83	19.8	2.6%
Meconium, moderate/heavy	7,341	75.7	274	65.3	-13.7%
Premature Rupture of Membrane (>12 Hours)	1,718	17.7	73	17.4	-1.8%
Abruptio Placenta	593	6.1	31	7.4	20.8%
Placenta Previa	399	4.1	19	4.5	10.0%
Other Excessive Bleeding	1,623	16.7	101	24.1	43.8%
Seizures During Labor	18	**	**	**	**
Precipitous Labor (<3 hrs.)	4,212	43.5	170	40.5	-6.7%
Prolonged Labor (> 20 hrs.)	1,857	19.2	97	23.1	20.7%
Dysfunctional Labor	1,258	13.0	83	19.8	52.5%
Breech/Malpresentation	3,327	34.3	190	45.3	32.0%
Cephalopelvic Disproportion	1,603	16.5	90	21.5	29.8%
Cord Prolapse	208	2.1	16	3.8	77.8%
Fetal Distress	6,720	69.3	356	84.9	22.5%
Anesthetic Complications	50	0.5	**	**	**
Total Complications:	32,797	338.2	1,586	378.2	11.8%
Primary C - Section	15,044	155.0	986	235.0	51.6%
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Public use birth files, data year 2000. * Rate/1000 Births. ** Number of New Jersey residents in this group was too small to provide reliable rates.					

Table 8
Number and Rate of Adverse Delivery Outcomes for Births with
Mothers Having and not Having Diabetes as a Medical Risk Factor of Pregnancy
New Jersey, 2000

Outcome	Adverse Outcomes of Live Births with Mothers not Having Diabetes		Adverse Outcomes of Live Births with Mothers Having Diabetes		Increased Risk
	Number	Rate*	Number	Rate*	
Macrosomia: >4000 Grams	10,466	101.0	660	148.0	46.5%
Low Birth Weight: <2500 Grams	7,617	73.5	446	100.0	36.0%
Abnormal Conditions of Newborn:	2,021	19.5	147	33.0	69.2%
Congenital Anomalies:	1,445	13.4	87	19.5	45.6%
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics, Public use Birth files, Data year 2000. * Rate/1000 Births.					

CHAPTER – 4 (WILL BE AVAILABLE IN 2006)

CHAPTER – 5 (WILL BE AVAILABLE IN 2006)

CHAPTER – 6 (WILL BE AVAILABLE IN 2006)



Let's hear your opinion of the The Burden of Diabetes in New Jersey Update! ✓

Your opinion is very important to us. So please help us to improve this and other publications by taking a few minutes of your time to answer the following questions.

A little bit about you

1. Please indicate your work setting or reason for interest in the report. ✓

- | | | |
|--|--|--|
| <input type="checkbox"/> State/local health department | <input type="checkbox"/> Other public health setting | <input type="checkbox"/> Acute care hospital |
| <input type="checkbox"/> Hospital clinic/private practice/FQHC | <input type="checkbox"/> Academic institution | <input type="checkbox"/> Health maintenance organization |
| <input type="checkbox"/> Non-profit organization | <input type="checkbox"/> Personal interest in asthma | <input type="checkbox"/> Other: _____ |

2. Which best describes your professional or personal diabetes-related activities? ✓ (Please check all that apply)

- | | | |
|---|--|--|
| <input type="checkbox"/> Public health | <input type="checkbox"/> Administration and planning | <input type="checkbox"/> Research/data analysis/evaluation |
| <input type="checkbox"/> Health promotion | <input type="checkbox"/> Outreach and advocacy | <input type="checkbox"/> Patient care and education |
| <input type="checkbox"/> Volunteer activities | <input type="checkbox"/> Personal experience managing asthma | <input type="checkbox"/> Other: _____ |

3. I plan to use this information as reference for the development of: ✓ (Please check all that apply)

- | | | | |
|---|--|--|---|
| <input type="checkbox"/> Health education materials | <input type="checkbox"/> Practice guidelines | <input type="checkbox"/> Public policies | <input type="checkbox"/> Personal knowledge |
| <input type="checkbox"/> Proposal writing/planning | <input type="checkbox"/> Advocacy efforts | <input type="checkbox"/> Other: _____ | |

4. Are you familiar with the New Jersey Diabetes Council? ✓

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|------------------------------|-----------------------------|

5. Do you know where to go for additional information on Diabetes? ✓

- | | |
|------------------------------|-----------------------------|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No |
|------------------------------|-----------------------------|

Your opinion of the report

6. Overall, what do you think of the writing style? ✓

- | | | | |
|--|--------------------------------------|---|-------------------------------------|
| <input type="checkbox"/> Too technical | <input type="checkbox"/> About right | <input type="checkbox"/> Too simplistic | <input type="checkbox"/> No opinion |
|--|--------------------------------------|---|-------------------------------------|

7. What do you think of the data presented in the tables and charts? ✓

- | | | | |
|--|--------------------------------------|---|-------------------------------------|
| <input type="checkbox"/> Too technical | <input type="checkbox"/> About right | <input type="checkbox"/> Too simplistic | <input type="checkbox"/> No opinion |
|--|--------------------------------------|---|-------------------------------------|

8. What do you think of the format of the report in terms of organization and order of appearance of topics and subtopics? ✓

- | | | |
|--|---|-------------------------------------|
| <input type="checkbox"/> Format makes report easy to read and understand | <input type="checkbox"/> Format makes report difficult to read and understand | <input type="checkbox"/> No opinion |
|--|---|-------------------------------------|

Final opinion

13. After reading this report, do you feel that you are more informed about: ☒

The prevalence of diabetes in New Jersey (i.e. number and rate of people who have diabetes)?

☐ Yes

☐ No

Primary and secondary prevention data?

☐ Yes

☐ No

Diabetes during Pregnancy?

☐ Yes

☐ No

12. Overall, the report met my diabetes data needs. ☒


☐ Strongly agree

☐ Agree

☐ No opinion

☐ Disagree

☐ Strongly disagree

13. Comments or Suggestions: 

If you would like to remain on our mailing list, please complete this survey and return it to:

Elizabeth Solan, Fax: (609) 292-9599

New Jersey Department of Health and Senior Services, Diabetes Control Program

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